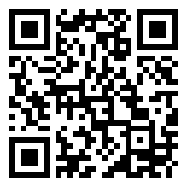
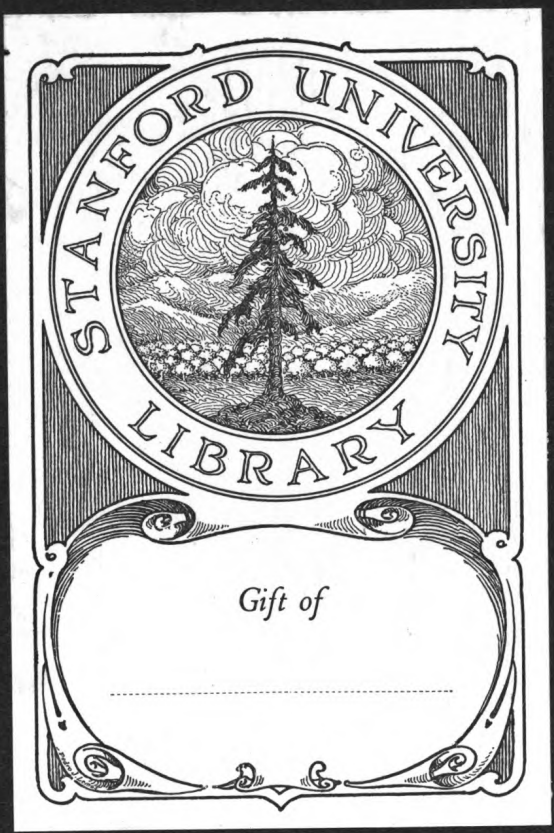
Boomer & Boschert press co., Syracuse, N.Y.

Boomer & Boschert press company, Syracuse N.Y., U.S.A. 1894. Annual catalogue. 22d, 1894.





BOOMER & BOSCHERT PRESS COMPANY,

SYRACUSE, N. Y.,

U. S. A.

1894.

Boomer & Boschert Press Company.

INCORPORATED 1874.

OFFICERS:

R. E. BOSCHERT, *President.* EDWIN NOTTINGHAM, *Vice-President.*

WM. D. DUNNING, *Secretary and Treasurer.*

HOME OFFICE AND WORKS:

329 WEST WATER STREET, - SYRACUSE, N. Y.

BRANCH OFFICES: 236 Greenwich St., New York.
36 LaSalle St., Chicago, Ill.
970 Woodward Ave., Detroit, Mich.

INDEX.

CIRCULAR.

IN PRESENTING our twenty-second annual catalogue we can only promise that the reputation we have gained for the capacity, durability and efficiency of our machinery will be maintained. Having three different kinds of power, and several sizes of each kind, together with platforms adapted to all situations, we are prepared to furnish outfits for any size mill from the smallest to the largest. Our Grater, Evaporators, Pumps, &c., speak for themselves in hundreds of mills all over the land.

Our prices are uniform and as low as is consistent with good material, the best workmanship, and a fair profit. Machinery cannot be sold on any other basis and prove satisfactory to the purchaser.

Do not be deceived by discounts. Compare the size of cheese, weight of material, power, size of rods, &c., with the NET PRICES.

We endeavor to make our terms of payment convenient to customers, and solicit correspondence.

All goods are delivered on board cars or boat here.

BOOMER & BOSCHERT PRESS CO.,
SYRACUSE, N. Y.

EXTRA HEAVY

Power Cider Press.

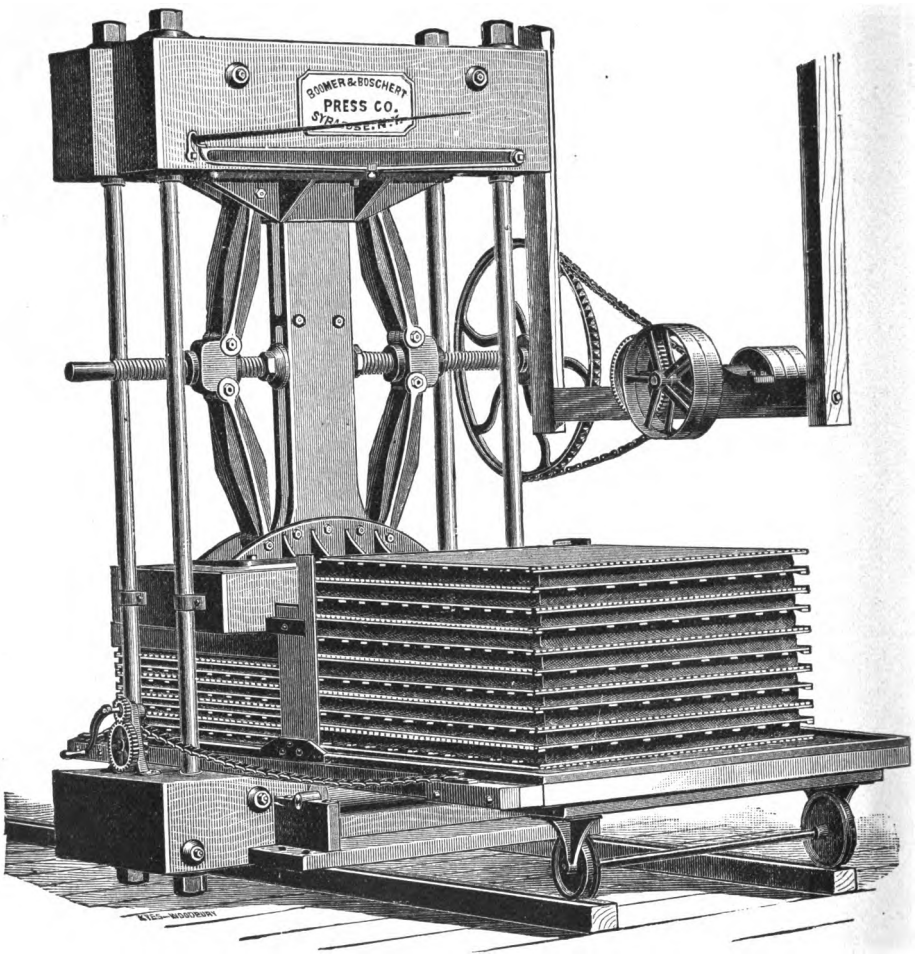


FIG. 1.

WITH

DOUBLE PLATFORM.

EXTRA HEAVY

Power Cider Press.

This press was designed especially to meet the requirements of those who may be called "Merchant Cider makers," and to whom the ability to run throughout the entire season without interruption on account of breakage of machinery is a matter of vital importance. One of the strong points of the KNUCKLE JOINT PRESS is that it is powerful, simple and easily kept at its work, with hardly a possibility of breakage, and some of the largest cider manufacturers of the country still prefer and are using this effective press.

The screw is of steel, and the nuts are lined with bronze, thus giving a maximum of strength and wearing qualties with a minimum of loss of power by friction and danger of delay for repairs.

PRICES.

Press Wooded, with Double Platform and Power Attachment	**$652 00**
Twenty-Four Racks and Form	**41 00**
Twenty-Two Cloths (Heavy)	**55 00**
Total	**$748 00**

DIMENSIONS.

Extreme Height of Press... ....12 ft. 4 in.	Racks.....5 ft. 2 in. square.
Head Beams, (each).....16 x 20 in.	Form.....4 ft. 8 in. square inside.
Base.....15 x 40 in.	Cloths.....96 x 126 inches.
Follower ....10 x 36 in.	Screw Nuts.....Bronze lined.
Blocking.....5 in. thick.	Screw (steel)..... .....3¼ inches.
Platform—Pine... .....4 in. thick.	Shipping weight, about.....12,000 pounds.

NOTE—When the Reversible or Combination Platforms are used, the height of Press is 12 feet 10 inches. With steel head and base beams, add $110.00. (See page 38.)

Power Cider Press.

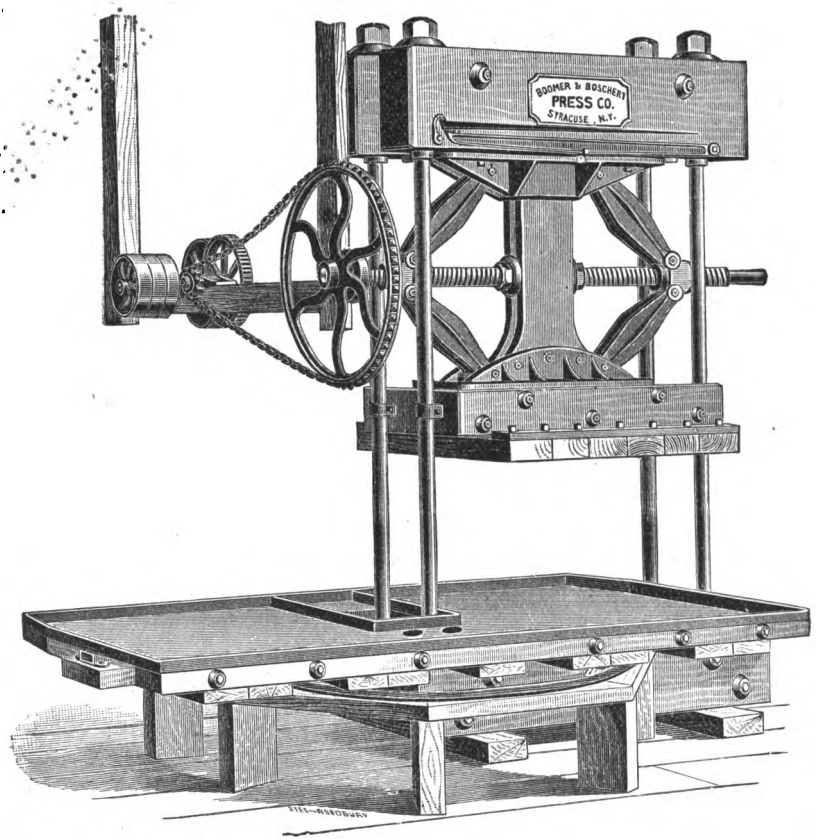


FIG. 2.

WITH

REVERSIBLE PLATFORM.

Power Cider Press.

This press has been a favorite one with Cider makers. It was brought prominently before the public at the Centennial Exhibition at Philadelphia, in 1876, where it performed the, at that time, unprecedented feat of making $116\frac{22}{32}$ barrels of cider from 800 bushels of apples, in 9 hours and 45 minutes. Many of our customers have since done much better than this, and at the Mechanics Institute in Boston, in 1882, we made 1225 gallons from 264 bushels of apples in 1 hour and 57 minutes, or at the rate of $196\frac{2}{3}$ barrels in 10 hours, or $544\frac{4}{10}$ gallons in 52 minutes, and $4\frac{64}{100}$ gallons per bushel of 50 pounds. Neither of these records have been approached by any other kind of Press at any public trial. The cut shows Press with Reversible Platform, but any other kind desired may be used.

PRICES.

Press, Wooded, with Reversible Platform and Power Attachment	**$487 00**
Twenty-Two Racks and Form	**33 00**
Twenty Cloths (Heavy)	**50 00**
Total	**$570 00**

DIMENSIONS.

Extreme Height of Press	11 ft. 9 in.	**Racks**	5 ft. 2 in. square.
Head Beams, (each)	14 x 18 in.	**Form**	4 ft. 8 in square.
Base	20 x 40 in.	**Cloths**	96 x 126 inches.
Follower	10 x 30 in.	**Screw, (steel)**	2¾ in.
Blocking	4 in. thick.	**Shipping weight, about**	9,500 lbs.

NOTE—With Double Platform this Press is 11 feet 4 inches high. With steel head and base beams add $90.00 (See page 38.)

Hand Cider Press.

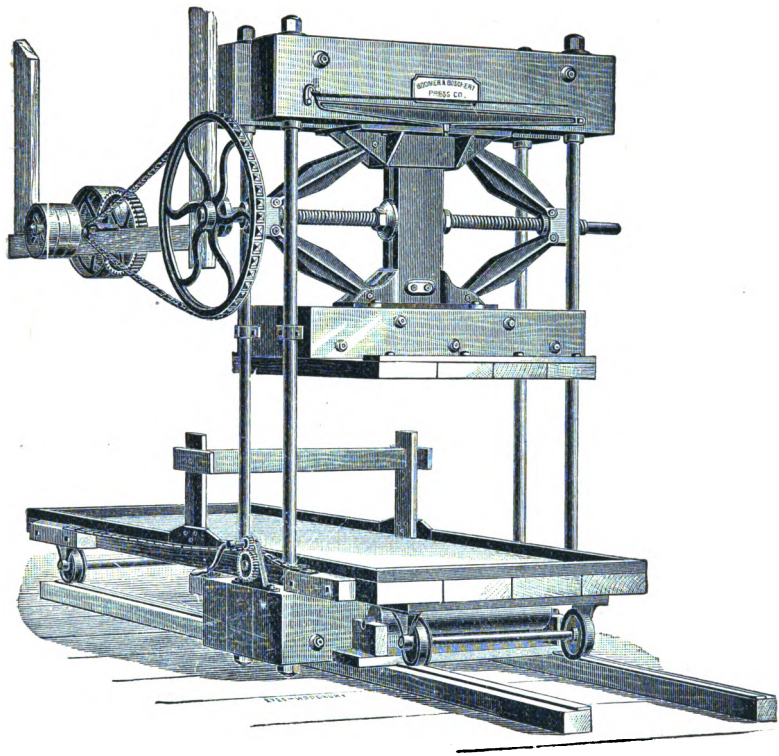


FIG. 3.

WITH

POWER ATTACHMENT

—AND—

DOUBLE PLATFORM.

Hand Cider Press.

This size is generally used in Custom Mills, and is well calculated for such work, for while it is strong and powerful, it is not so large as to be cumbersome when used on a small cheese. That it has given satisfaction is proven by each year's increasing sales, and the many flattering testimonials we have received from hundreds of customers in almost every State in the Union. We give below itemized prices of different outfits of this Press. Any part will be sold separately at the prices named. The elevator, grater and supporting frame can be attached if desired, as in Fig. 7.

PRICES WHEN WORKED BY POWER.

With Either Double or Reversible Platform.

Press, Wooded	**$225 00**	
Power Attachment, with 3 feet wheel and 16 feet chain	**45 00**	
Platform	**65 00**	
Eighteen Racks and Form	**25 00**	
Sixteen Cloths, (Medium)	**26 00**	**$386 00**
Weight about	7,500 lbs.	

With Combination Platform.

Press, Wooded	**$225 00**	
Power Attachment, with 3 feet wheel and 16 feet chain	**45 00**	
Platform	**86 00**	
Eighteen Racks and Form	**25 00**	
Sixteen Cloths, (Medium)	**26 00**	**$407 00**
Weight about	7,600 lbs.	

With Single Platform on Wheels.

Press, Wooded	**$225 00**	
Power Attachment, with 3 feet wheel and 16 feet chain	**45 00**	
Platform	**25 00**	
Nine Racks and Form	**12 50**	
Eight Cloths, (Medium)	**13 00**	**$320 50**

NOTE—For dimensions, see page 11. With steel head and base beams, add $70,00. (See page 38.)

Hand Cider Press.

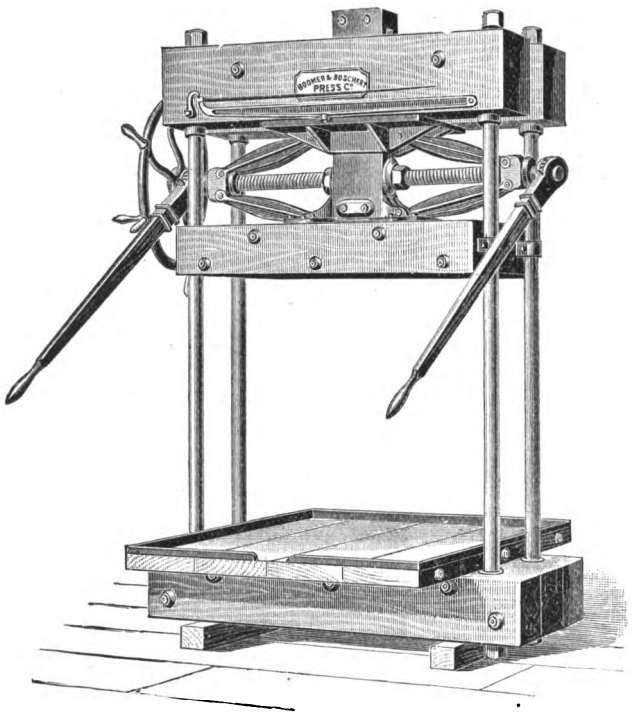


FIG. 4.

WITH

SINGLE PLATFORM.

Hand Cider Press.

This is the same Press represented on page 8, but arranged to be worked by hand. Upon each end of the screw is a lever and ratchet by which it can be worked very rapidly and effectively. To run it up or down when not under pressure, a hand wheel is placed on one end of the screw. The Power Attachment and Double Platform can be added at any time, making it the same as Fig. 3.

WORKED BY HAND.

With Either Double or Reversible Platform.

Press, Wooded	**$225 00**	
Platform	**65 00**	
Eighteen Racks and Form	**25 00**	
Sixteen Cloths, (Medium)	**26 00**	**$341 00**
Weight about	6,500 lbs.	

With Combination Platform.

Press, Wooded	**$225 00**	
Platforms	**86 00**	
Eighteen Racks and Form	**25 00**	
Sixteen Cloths, (Medium)	**26 00**	**$362 00**
Weight about	7,000 lbs.	

With Single Platform on Wheels.

Press, Wooded	**$225 00**	
Platform on Wheels	**25 00**	
Nine Racks and Form	**12 50**	
Eight Cloths, (Medium)	**13 00**	**$275 50**

DIMENSIONS.

Extreme Height of Press.....10 ft.	Racks.....4 ft. 10 in. square.
Head Beams (each).....10 x 15 in.	Form.....4 ft. 4 in. square.
Base .....12 x 30 in.	Cloth.....84 x 118 inches.
Follower.....10 x 24 in.	Rise of Follower.....2 ft. 6 inches.

NOTE.– When the Reversible, Combination, or Single Platform on Wheels are used, the extreme height of Press will be 10 feet 5 inches. With steel head and base beams add $70.00. (See page 38.)

Wine Press.

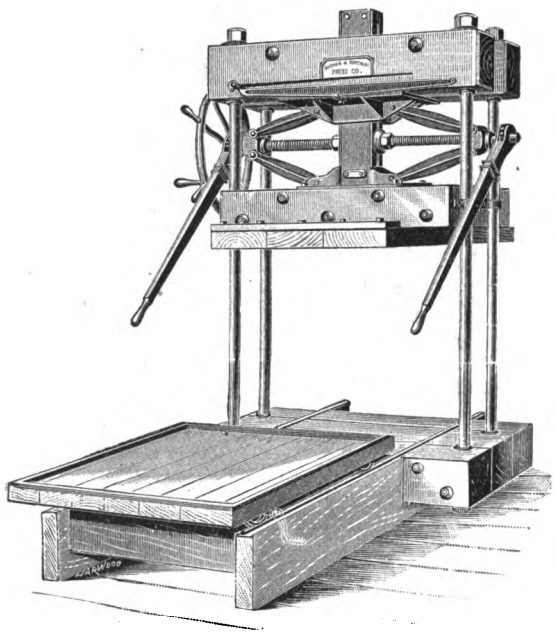


FIG. 5.

WITH

SINGLE PLATFORM ON WHEELS.

Wine Press.

This is so called simply as a designation of its size. It is well adapted for small wineries and for the smaller custom cider mills, or those having large orchards. Its capacity is from thirty-five to forty bushels in a cheese. The Double Platform or Power Attachment can be added at any time, which would nearly double its capacity. While not strictly portable it can be moved from place to place without taking apart, and can be set up out of doors or in the orchard.

PRICES.

With Power Attachment and Either Double or Reversible Platform.

Press, Wooded	$140 00	
Power Attachment, with 2½ ft. Wheel and 14 ft. Chain	40 00	
Platform	60 00	
Sixteen Racks and form	17 00	
Fourteen Cloths, (Medium)	16 50	$273 50

Weight about ..... 4,000 lbs.

By Hand with Single Platform on Wheels.

Press, Wooded	$140 00	
Platform on Wheels	20 00	
Eight Racks and Form	8 50	
Seven Cloths, (Medium)	8 25	$176 75

Weight about ..... 3,500 lbs.

DIMENSIONS.

Extreme Height of Press	8 ft. 4 in.	Screw (Steel)	2¼ inches.
Head Beams (each)	10 x 12 in.	Racks	48 in. square.
Base	10 x 24 in.	Form	42 in. square.
Follower	8 x 20 in.	Cloth	84 x 84 or 72 x 102 inches.

NOTE.—When the Reversible, or Single Platform on Wheels are used, the extreme height of Press will be 8 feet 8 inches. With steel head and base beams add $50.00. (See page 38.)

No. 02 Screw Press

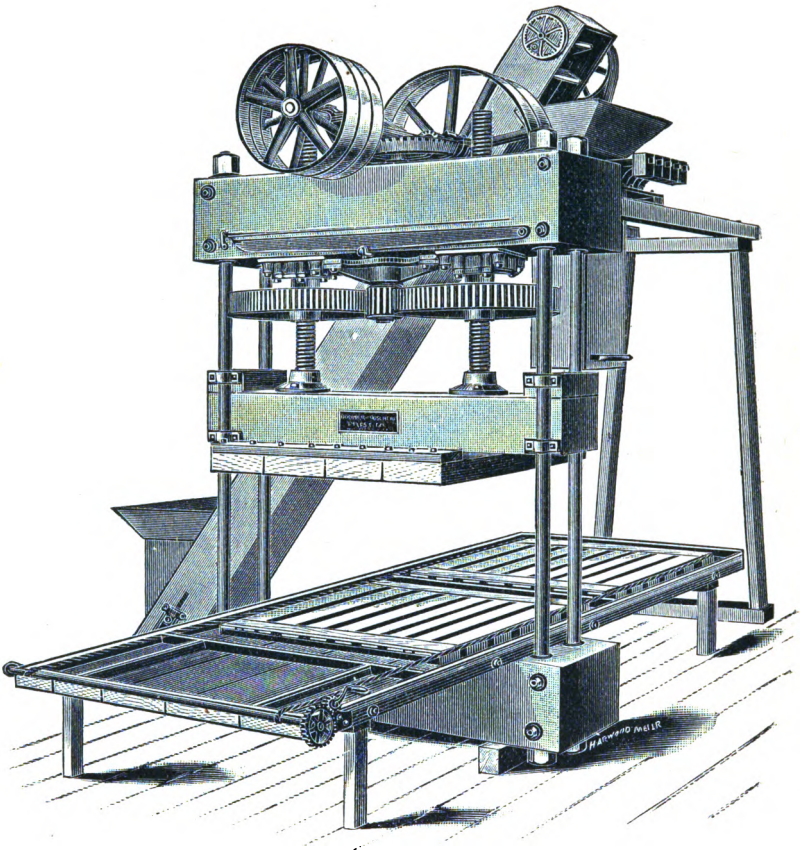


Fig. 6.

WITH

DRAG PLATFORM,

ELEVATOR AND GRATER.

No. 02 Screw Press.

This is a small, quick acting, powerful Press, intended for sections where apples are not so plentiful as to warrant the outlay for a larger size. It is fitted to be run by power, having a fast motion for running up, and both fast and slow motions down. It has steel screws 3 inches in diameter, adjustable bearings and Indicator, the same as our large screw presses.

The extended drag platform shown is the best of its kind yet devised. It enables each customer's cider to be kept separate, and the act of drawing the new cheese in also draws the pressed cheese out. This makes it very rapid and convenient, and with the Elevator and Grater as shown, makes it very desirable for the smaller custom mills.

It will make about three barrels of cider at a time, and will run clear down, pressing one layer if desired. Like all our presses, it will be fitted with any style platform ordered.

PRICES.

With Single Platform on Wheels.

Press	**$150 00**
Platform and Follower Plank	**16 00**
Eight Racks and Form	**7 50**
Seven Cloths, (Medium)	**6 50**
Total	**180 00**

With Either Reversible, Double or Drag Platform.

Press	**$150 00**	
Platform and Follower Plank	**42 00**	
Sixteen Racks and Form	**15 00**	
Fourteen Cloths, (Medium)	**13 00**	**$220 00**
Elevator	**$ 25 00**	
Grater	**45 00**	
Supporting Frame and Chute	**10 00**	**$ 80 00**
Total		**$300 00**

The Racks are 42 inches square, and the Form 37 inches square inside.
For Steel Head and Base Beams add $36.00. (See page 39.)

No. 1 Screw Press.

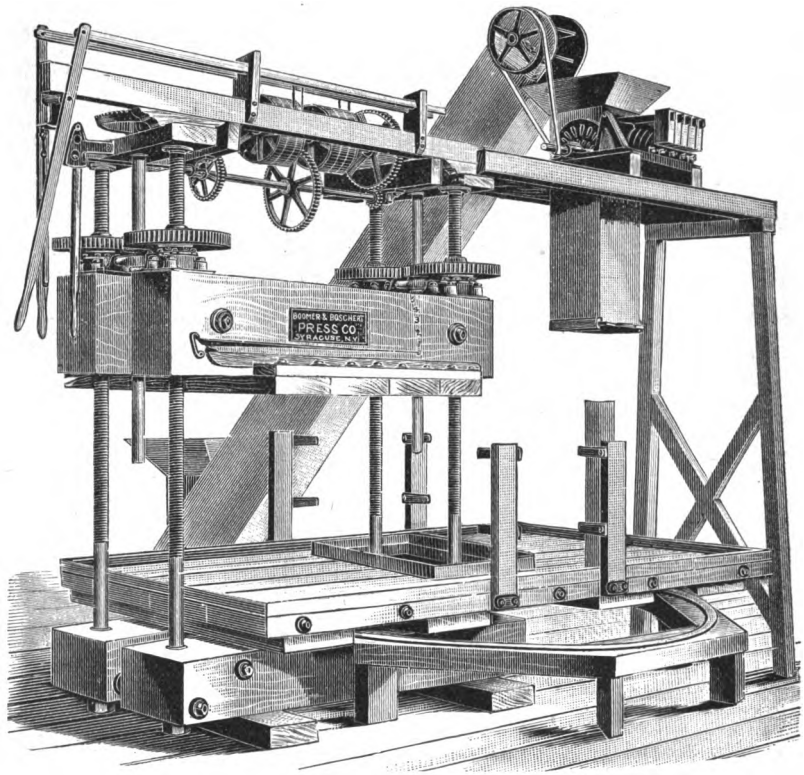


FIG. 7.

WITH

REVERSIBLE PLATFORM,

ELEVATOR AND GRATER.

No. 1 Screw Press.

The Press and fixtures represented on opposite page was especially designed to meet the wants of custom mills, where each customer's apples are made up separately and no apples are stored. The fruit is thrown from the wagon into the hopper of the Elevator, which delivers them to the Grater. The Elevator, being driven from a pulley on the grater shaft, will only deliver the apples in proportion to the speed of the Grater, and thus avoids any danger of overloading it. A slide in the spout holds the pomace back while placing the Racks and Cloths. The Reversible Platform enables the operator to press one cheese while grinding another, and if our Pump is added, the cider may be put into the barrels on the wagon, thus avoiding all heavy work. Any other style of Platform can be used on the Press if desired.

PRICES.

Press		$210 00	
With either Double, Reversible or Drag Platform		60 00	
Eighteen Racks and Form		19 00	
Sixteen Cloths, (Medium)		19 00	$308 00
Elevator		32 00	
Grater, with Supporting Frame and Spout		60 00	92 00
Total			$400 00

DIMENSIONS.

Size of Steel Screws	2¼ inches.	Size of Form	42 x 42 inches.
Width between Screws	5 feet.	Size of Cloths	84 x 84 or 72 x 102 inches.
Size of Head Beams	10 x 15 inches.	Width of Belt required	2 inches.
Size of Racks	48 x 48 inches.	Bushels in full Cheese	50.

Extreme Height of Press, 8 ft. 10 inches.
Extreme Height to Top of Elevator, 12 ft.
Distance from center of Platform to outside of Elevator, 10 ft. 8 in.
Diameter of Circle described by Platform, 13 ft. 3 in.
Weight about 6,000 lbs.
For steel head and base beams add $70.00, (see page 39.)

No. 2 Screw Press.

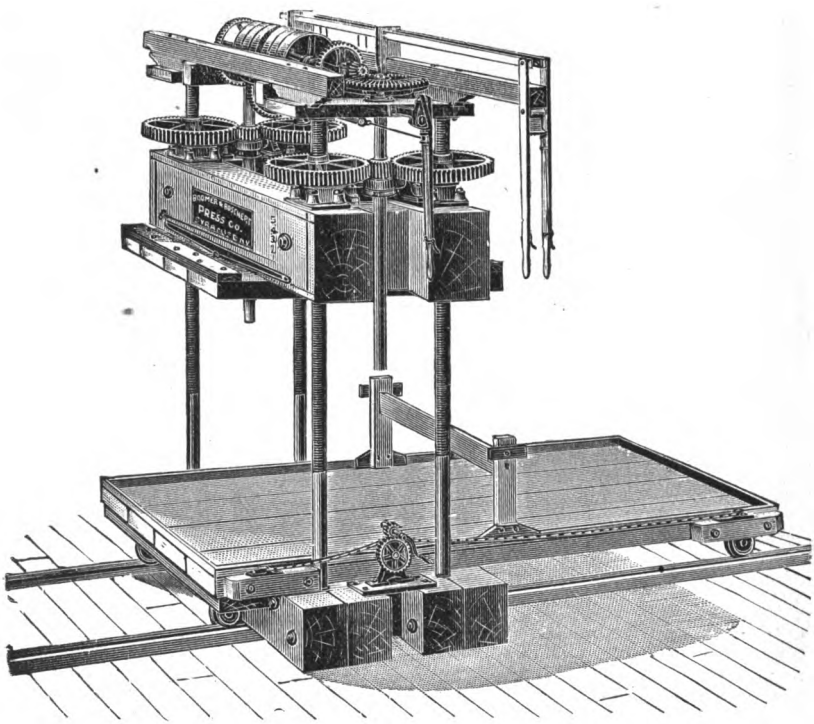


FIG. 8.

WITH

DOUBLE PLATFORM.

No. 2 Screw Press.

This is an excellent Press for the ordinary custom mills, and is capable of doing a large amount of work, in fact its capacity depends almost entirely on the skill of the operators in laying up the cheese, as with three different speeds it can be handled as quickly as desired. It will press any amount from one layer to a full cheese without any handling of blocking and give full pressure at any point. It may be arranged with Reversible Platform, Grater and Elevator, as in Fig. 7.

PRICES.

With Double Platform.

As shown in Fig. 8.

Press	**$300 00**
Platform	**65 00**
Twenty Racks and Form	**27 75**
Eighteen Cloths, (Medium)	**29 25**
Total	**$422 00**

With Combination Platform.

Press	**$300 00**
Combination Platform	**86 00**
Twenty Racks and Form	**27 75**
Eighteen Cloths, (Medium)	**29 25**
Total	**$443 00**

With Reversible Platform, Elevator and Grater.

As shown in Fig. 7.

Press		**$300 00**
Reversible Platform		**65 00**
Twenty Racks and Form		**27 75**
Eighteen Cloths, (Medium)		**29 25**
		$422 00
Elevator	**$38 00**	
Grater with Supporting Frame, &c.	**62 00**	
	100 00	
Total		**$522 00**

DIMENSIONS.

Size of Steel Screws....2½ in.	Size of Racks....4 ft. 10 in. square.
Size of Head Beams....14 x 18 in.	Size of Cloths....84 x 118 in.
Size of Base Beams....12 x 20 in.	Bushels in full Cheese....80
Extreme height....9½ feet.	Weight, about....10,000 lbs

For steel head and base beams add $95.00. (See page 39.)

No. 3 Screw Press.

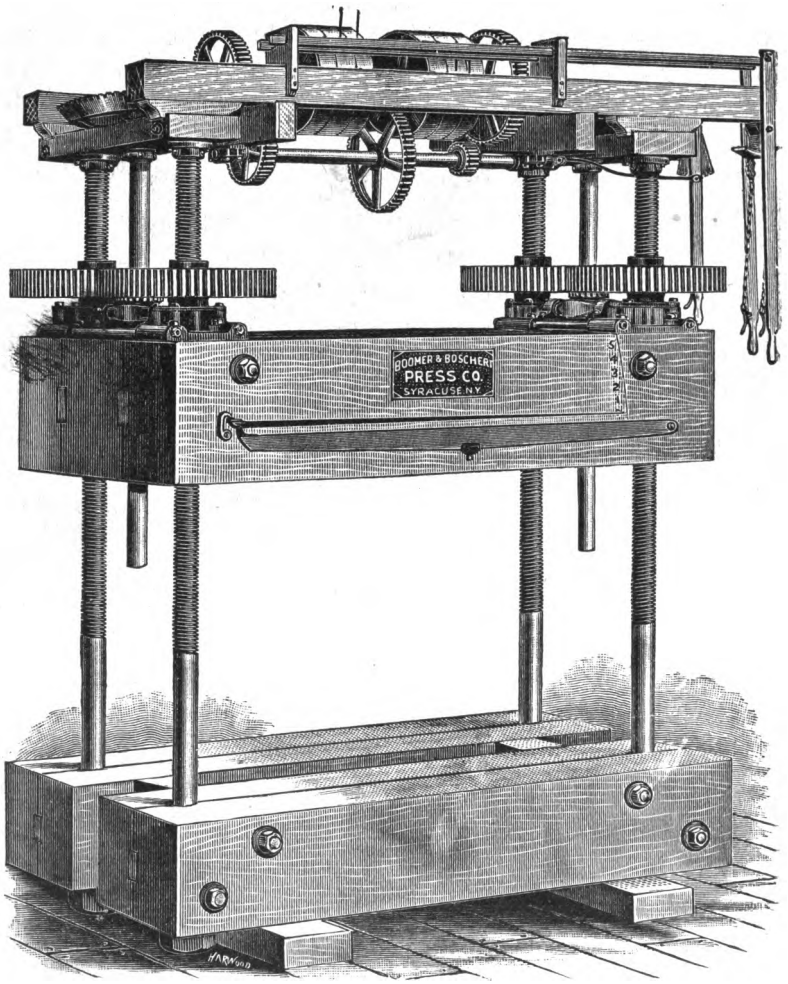


FIG. 9.

No. 3 Screw Press.

This Press is designed for heavy and continuous work, and with a view to avoid danger of breakage and consequent delay. The screws are of steel, 3 inches in diameter, The screw nuts are of the best quality of bronze. The small bevel gears on top and the sliding pinions on upright shaft are of steel castings, and the upright shafts are also of steel. The workmanship is the very best, and no expense is spared to make the Press strong and durable.

The cut shows the Press without the platform, but any style of platform desired may be used.

PRICES.

Press	**$500 00**
Either Double or Reversible Platform	**75 00**
Twenty-Four Racks and Form	**41 00**
Twenty-Two Cloths, (Heavy)	**55 00**
Total	**$671 00**
Above outfit with Combination Platform	**$682 00**

DIMENSIONS.

Extreme Height.....12 feet 1 in.	Size of Cloths.....96 x 126 in.
Size of Steel Screws.....3 in.	Size of Form.....4 ft. 8 in. square.
Width between Screws.....6 ft.	Width of Belt required.....2¼ in.
Size of Head.....18 x 48 in.	Bushels in full Cheese.....100.
Size of Racks.....5 ft. 2 in. square.	Weight, about.....12,000 lbs.

For steel head and base beams add $130.00. (See page 39.)

N. B.—We also make a larger size (No. 4) having 3½ inch screws and weighing 17,000 lbs., prices for which will be quoted on application.

INVERTED
Hydraulic Press.

With Drag Platform, Elevator and Grater.

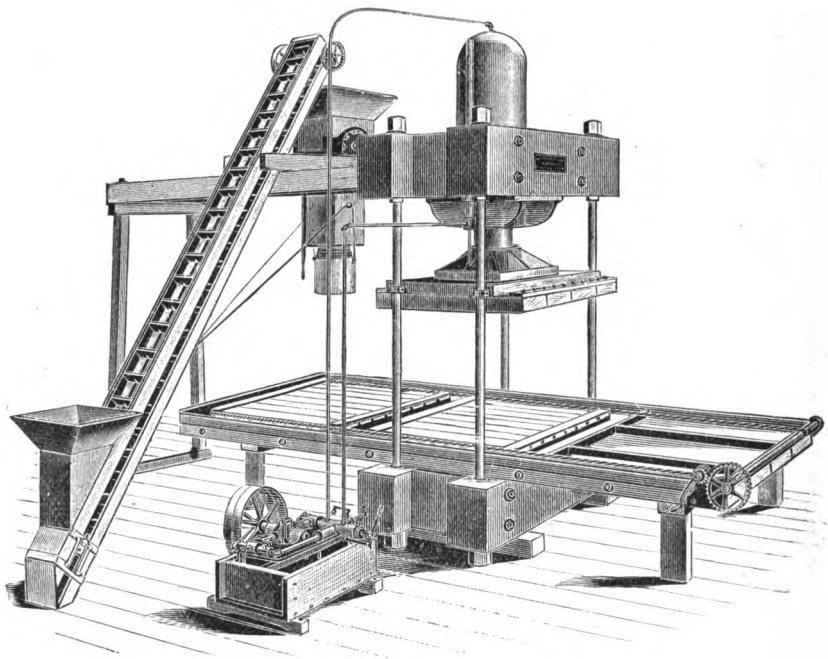


FIG. 10.

This Press will be found particularly convenient for custom mills, and the extreme simplicity of the whole arrangement will commend it to every mechanic.

The means of obtaining pressure downwards is the same as in any ordinary Hydraulic Press, inverted, and to return the ram and follower upwards to its position we attach two small tubes, (except in No. 8) or in effect two small hydraulic presses, one on each side of the cylinder, which are connected with the pumps, and raise the follower by power easily and quickly.

When the height of the cheese varies, as in custom work, the follower is only raised enough to let the cheese under, thus saving from two to six minutes over the regular upward pressure Hydraulic Press, which has to drop clear down in changing platforms, whether the cheese be large or small, thus losing much valuable time.

INVERTED
Hydraulic Press.

With Reversible Platform, Elevator and Grater.

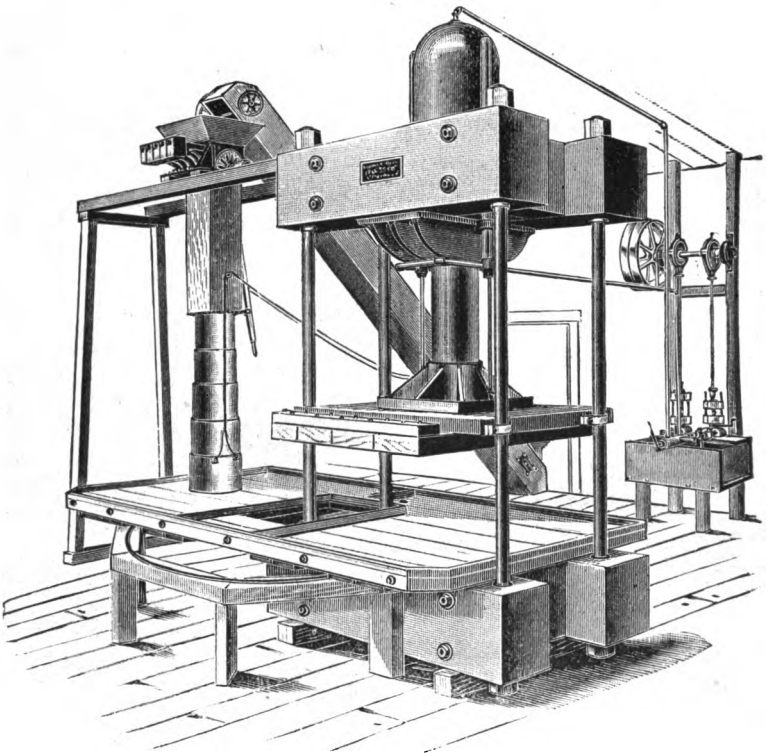


FIG. 11.

The cylinder is long enough to give full movement to the follower, so that one layer can be pressed if desired without the handling of blocking.

With our method of packing there is hardly a possibility of leakage, but to avoid any contingency the cap of the ram is constructed with raised edges, forming a saucer, from which the water can be led through a pipe back into the pump vat, should it be necessary. Means for draining pipes, cylinder and pumps are provided to avoid danger from freezing.

Both large and small cylinders are lined with copper and the rams packed on the ends as shown on page 32.

Any style of platform can be used, the same as in any of our other Presses. The pumps being entirely separate from the Press may be set where most convenient.

INVERTED
Hydraulic Press.

With Transfer Cars.

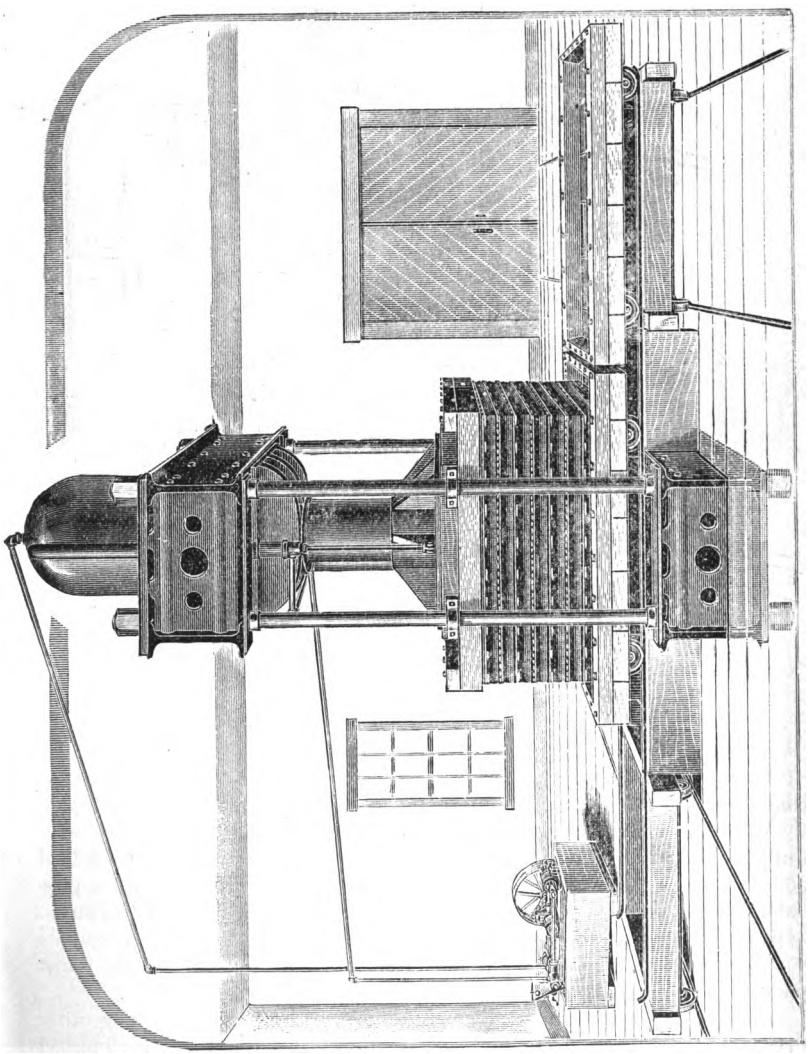


FIG. 12.

No. 8 INVERTED HYDRAULIC PRESS.

PRICES.

Press and Double Power Pumps	**$200 00**	
Either Reversible, Double or Drag Platform	**40 00**	
Twenty Racks and Form	**15 00**	
Eighteen Cloths, (Medium) 66 inches square	**15 00**	**$270 00**
Elevator	**$ 25 00**	
Grater	**45 00**	
Supporting Frame and Spout	**10 00**	**$ 80 00**
Total		**$350 00**

DIMENSIONS.

Size of Wood Beams (each).....8 x 12 in.	Size of Form, (inside).....32 in.
Inside Diameter of Cylinder.....8 in.	Size of Cloths, (square).....66 in.
Diameter of Rods.....1¾ in.	Cheese.....22 to 25 bushels.
Width between Rods.....52 in.	Area of Ram.....50 square inches
Between Platform and Blocking.....33 In.	Guaranteed safe pressure.....60 tons.
Movement of Ram.....32 in.	Weight complete, about.....5,000 lbs.
Size of Rack.....36 in.	

No. 9 INVERTED HYDRAULIC PRESS.

PRICES.

Press and Double Power Pumps	**$250 00**	
Either Reversible, Double or Drag Platform	**50 00**	
Twenty Racks and Form	**18 00**	
Eighteen Cloths, (Medium) 72 inches square	**17 00**	**$335 00**
Elevator	**$ 30 00**	
Grater	**45 00**	
Supporting Frame and Spout	**15 00**	**$ 90 00**
Total		**$425 00**

DIMENSIONS.

Size of Wood Beams, (each).....9 x 15 in.	Size of Form, (inside).....37 in.
Inside Diameter of Cylinder.....9 in.	Size of cloths, (square).....72 in.
Diameter of Rods.....2 in.	Cheese.....35 to 40 bushels.
Width between Rods.....58 in.	Area of Ram.....63⅜ square inches.
Between Platform and Blocking.....35 in.	Guaranteed safe pressure.....75 tons.
Movement of Ram.....34 in.	Weight complete, about.....8,000 lbs.
Size of Rack.....42 in.	

No. 10 INVERTED HYDRAULIC PRESS.

PRICES.

Press and Double Power Pumps	**$325 00**	
Either Reversible, Double or Drag Platform	**60 00**	
Twenty-Two Racks and Form	**22 50**	
Twenty Cloths, (Heavy)	**30 50**	**$438 00**
Elevator	**$ 32 00**	
Grater	**45 00**	
Supporting Frame and Spout	**15 00**	**$ 92 00**
Total		**$530 00**

DIMENSIONS.

Size of Wood Beams, (each).....10 x 18 in.	Size of Form, (inside).....42 in.
Inside Diameter of Cylinder.....10 in.	Size of Cloth....84 in. square or 72 x 102 in.
Diameter of Rods.....2¼ in.	Cheese.....45 to 50 bushels.
Width between Rods.....66 in.	Area of Ram.....78½ square in.
Between Platform and Blocking.....40 in.	Guaranteed safe pressure.....100 tons.
Movement of Ram.....39 in.	Weight complete, about.....10,000 lbs.
Size of Rack.....48 in.	

No. 12 INVERTED HYDRAULIC PRESS.

PRICES.

Press with Wood Beams and Double Power Pump	**$425 00**
Either Reversible, Double or Drag Platform	**70 00**
Twenty-Two Racks and Form	**30 00**
Twenty Cloths, (Heavy) 96 inches square	**39 00**
Total	**$564 00**

NOTE.—For this Press with Steel Beams add $75.00.

DIMENSIONS.

Size of Wood Beams	16 x 20 in.
Inside Diameter of Cylinder	12 in.
Diameter of Rods	2½ in.
Width between Rods	70 in.
Between Platform and Blocking	42 in.
Movement of Ram	40 in.
Size of Rack	58 in.
Size of Form, (inside)	52 in.
Size of Cloth	96 in. square, or 84 x 118 in.
Cheese, about	75 bushels.
Area of Ram	113 square in.
Guaranteed Pressure	140 tons.
Weight complete, about	12,000 lbs.

No. 13 INVERTED HYDRAULIC PRESS.

WITH STEEL BEAMS.

PRICES.

Press and Double Power Pumps	**$600 00**
Either Reversible, Double or Drag Platform	**75 00**
Twenty-Four Racks and Forms	**33 00**
Twenty-Two Cloths, (Heavy) 96 inches square	**42 00**
Total	**$750 00**

DIMENSIONS.

Depth of Steel Beams	20 in.
Inside Diameter of Cylinder	13 in.
Diameter of Rods	2¾ in.
Width between Rods	70 in.
Between Platform and Blocking	44 in.
Movement of Ram	42 in.
Size of Rack	58 in.
Size of Form, (inside)	56 in.
Size of Cloth	96 in. square or 84 x 118 in.
Area of Ram	132¾ square in.
Guaranteed Pressure	165 tons.
Weight complete, about	14,000 lbs.
Cheese, about	85 bushels.

No. 14 HYDRAULIC PRESS.

WITH STEEL BEAMS.

PRICES.

Press and Double Power Pump	**$727 00**
Combination Platform	**80 00**
Twenty-Six Double Racks and Forms	**65 00**
Twenty-Four Cloths, (Heavy) 96 x 126 inches	**60 00**
Total	**$932 00**

DIMENSIONS.

Depth of Steel Beams	24 in.
Inside Diameter of Cylinder	14 in.
Diameter of Rods	3 in.
Width between Rods	72 in.
Between Platform and Blocking	46 in.
Movement of Ram	42 in.
Size of Rack	62 in.
Size of Form, (inside)	56 in.
Size of Cloths	96 x 126 in.
Area of Ram	153 square in.
Guaranteed Pressure	190 tons.
Weight, complete, about	16,000 lbs.
Cheese, about	100 bushels.

Hydraulic Press.

UPWARD PRESSURE,

WITH

Wooden Beams.

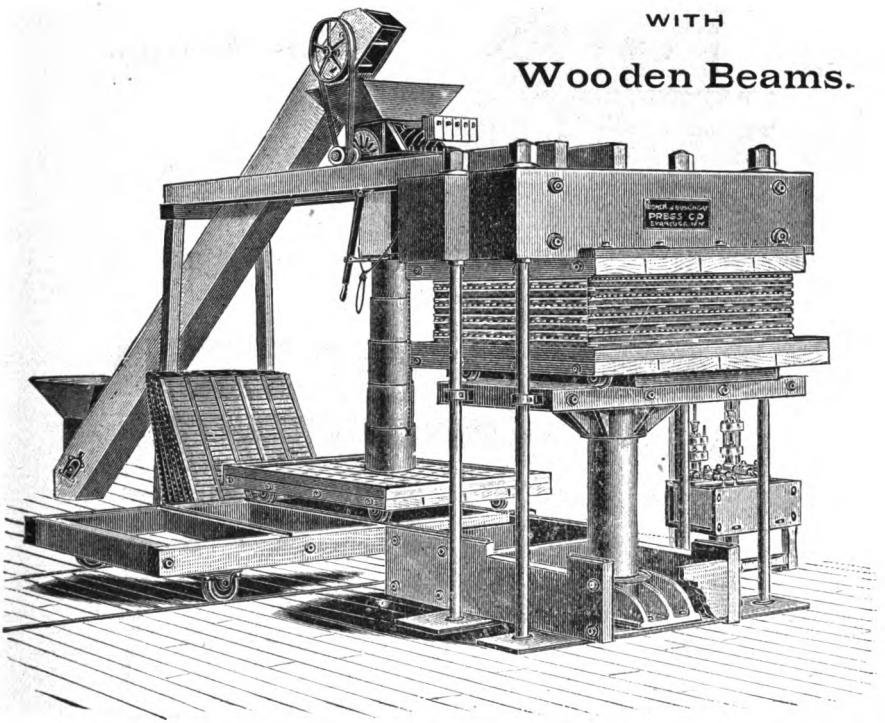


FIG. 13.

With Combination Platform, Elevator and Grater.

For ordinary Custom Mills an "Upward" pressure Hydraulic Press is not so quick and convenient as the "Inverted" style, but in some situations may be desirable. To accommodate those wishing a Press of this style, we have adopted for sizes 8, 9 and 10 the Combination Platform as shown in Fig. 13, as being most convenient. All these Presses are very heavy as a glance at the dimensions will show, and constructed with a view of giving many years of service. The cylinders are copper-lined, and the plungers are of iron, with full movement, so as to press one layer if necessary without the handling of blocking.

Hydraulic Press.

UPWARD PRESSURE,

WITH

Steel Beams.

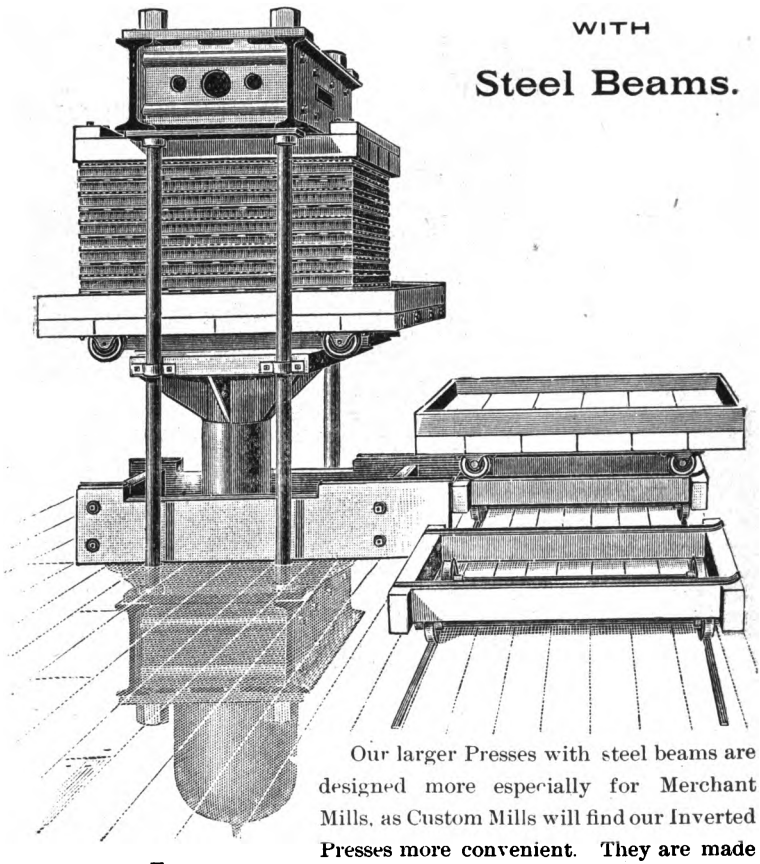


FIG 14.

Our larger Presses with steel beams are designed more especially for Merchant Mills, as Custom Mills will find our Inverted Presses more convenient. They are made extra strong as a guard against any possible breakage and cause of delay. The large area of the rams give ample power to press the cheese dry with a comparatively low water pressure, and hence all the joints, packing, &c., will be less likely to give trouble than when higher pressures are used. Every point has been carefully considered and we offer them as perfect and unequalled machines. Of course Presses of this character cannot compete in price with those having wooden beams and lighter castings, but we believe the extra expense will be well invested. They are by far the most powerful Hydraulic Cider Presses made.

No. 8 UPWARD HYDRAULIC PRESS.

WITH WOODEN BEAMS.

PRICES.

Press and Double Power Pump	$200 00	
Combination Platform	40 00	
Twenty Racks and Form	15 00	
Eighteen Cloths, (Medium) 66 inches square	15 00	$270 00
Elevator	$ 25 00	
Grater	45 00	
Supporting Frame and Spout	15 00	$ 80 00
Total		$350 00

DIMENSIONS.

Size of Wood Beams	8 x 12 in.	Size of Form, (inside)	32 in.
Inside Diameter of Cylinder	8 in.	Size of Cloths, (square)	66 in.
Diameter of Rods	1¾ in.	Cheese	22 to 25 bushels.
Width between Rods	52 in.	Area of Ram	50 square inches.
Between Platform and Blocking	33 in.	Guaranteed safe pressure	60 tons.
Movement of Ram	32 in.	Weight complete, about	5,000 lbs.
Size of Rack	36 in.		

No. 9 UPWARD HYDRAULIC PRESS.

WITH WOODEN BEAMS.

PRICES.

Press and Double Power Pumps	$250 00	
Combination Platform	50 00	
Twenty Racks and Form	18 00	
Eighteen Cloths, (Medium) 72 inches square	17 00	$335 00
Elevator	$ 30 00	
Grater	45 00	
Supporting Frame and Spout	15 00	$ 90 00
Total		$425 00

DIMENSIONS.

Size of Wood Beams, (each)	9 x 15 in.	Size of Form, (inside)	37 in.
Inside Diameter of Cylinder	9 in.	Size of Cloths, (square)	72 in.
Diameter of Rods	2 in.	Cheese	35 to 40 bushels.
Width between Rods	58 in.	Area of Ram	63⅝ square inches.
Between Platform and Blocking	35 in.	Guaranteed safe pressure	75 tons.
Movement of Ram	34 in.	Weight complete, about	8,000 lbs.
Size of Rack	42 in.		

No. 10 UPWARD HYDRAULIC PRESS.

WITH WOODEN BEAMS.

PRICES.

Press and Double Power Pumps	$325 00	
Combination Platform	60 00	
Twenty-Two Racks and Form	22 50	
Twenty Cloths, (Heavy)	30 50	$438 00
Elevator	$ 32 00	
Grater	45 00	
Supporting Frame and Spout	15 00	$ 92 00
Total		$530 00

DIMENSIONS.

Size of Wood Beams, (each)	10 x 18 in.	Size of Form, (inside)	42 in.
Inside Diameter of Cylinder	10 in	Size of Cloth	84 in. square or 72 x 102 in.
Diameter of Rods	2¼ in.	Cheese	45 to 50 bushels.
Width between Rods	66 in.	Area of Ram	78½ square in.
Between Platform and Blocking	40 in.	Guaranteed safe pressure	100 tons.
Movement of Ram	39 in.	Weight complete, about	10,000 lbs.
Size of Rack	48 in.		

No. 12 HYDRAULIC PRESS.

WITH WOOD BEAMS.

PRICES.

Press with Wood Beams and Noiseless Double Power Pump	**$425 00**
Combination Platform	**70 00**
Twenty-Two Racks and Form	**30 00**
Twenty Cloths, (Heavy) 96 inches square	**39 00**
Total	**$564 00**

NOTE—For this Press with Steel Beams add $75.00.

DIMENSIONS.

Size of Wood Beams.....16 x 20 in.	Size of Form, (inside).....52 in.
Inside Diameter of cylinder.....12 in.	Size of Cloth, 96 in. square, or 84 x 118 in.
Diameter of Rods.....2½ in.	Area of Ram.....113 square in.
Width between Rods.....70 in.	Guaranteed Pressure.....140 tons.
Between Platform and Blocking.....42 in.	Weight complete, about .....12,000 lbs.
Movement of Ram.....40 in.	Cheese, about.....75 bushels.
Size of Rack.....58 in.	

No. 13 HYDRAULIC PRESS.

WITH STEEL BEAMS.

PRICES.

Press and Noiseless Double Power Pumps	**$600 00**
Two Transfer Cars and Two Platforms (Fig. 14)	**80 00**
Twenty-Four Racks and Forms	**33 00**
Twenty-Two Cloths (Heavy) 96 inches square	**42 00**
Total	**$755 00**

DIMENSIONS.

Depth of Steel Beams.....20 in.	Size of Form, (inside).....52 in.
Inside diameter of Cylinder.....13 in.	Size of cloth, 96 in. square or 84 x 118 in.
Diameter of Rods.....2¾ in.	Area of Ram.....132¾ square in.
Width between Rods.....70 in.	Guaranteed Pressure.....165 tons.
Between Platform and Blocking.....44 in.	Weight complete, about.....14,000 lbs.
Movement of Ram.....42 in.	Cheese, about.....85 bushels.
Size of Rack.....58 in.	

No. 14 HYDRAULIC PRESS.

WITH STEEL BEAMS.

PRICES.

Press and Noiseless Double Power Pump	**$727 00**
Combination Platform	**80 00**
Twenty-Six Double Racks and Forms	**65 00**
Twenty-Four Cloths, (Heavy) 96 x 126 inches	**60 00**
Total	**$932 00**

DIMENSIONS.

Depth of Steel Beams.....24 in.	Size of Form, (inside).....56 in.
Inside Diameter of Cylinder.....14 in.	Size of Cloths.....96 x 126 in.
Diameter of Rods.....3 in.	Area of Ram.....153 square in.
Width between Rods.....72 in.	Guaranteed Pressure.....190 tons.
Between Platform and Blocking.....46 in.	Weight complete, about.....16,000 lbs.
Movement of Ram.....42 in.	Cheese, about.....100 bushels.
Size of Rack.....62 in.	

DESCRIPTION
OF THE
HYDRAULIC PRESS.

As the action of the Hydraulic Press does not seem to be generally understood, we have prepared the following illustrations which clearly show the principles involved. The power depends upon the principle that fluids press equally in all directions, and that if the pressure applied to the plunger of a force pump be multiplied by the ratio existing between the area of the pump plunger and that of the ram of press, the product will be the power of the press; thus if the diameter of the pump plunger be $\frac{8}{10}$ of an inch, the area would be ½ square inch, and if the ram were 12 inches in diameter, the area being 113 square inches, the ratio between pump and ram would be as 1 to 226, or the area of the ram would be 226 times larger than the pump plunger. Now if one thousand pounds weight were laid on the pump plunger, the pressure transmitted through the water to the press ram would be $226 \times 1000 = 226{,}000$ pounds, or 113 tons, and the water pressure would be 2,000 pounds per square inch of surface, both in pump, pipes, valves and

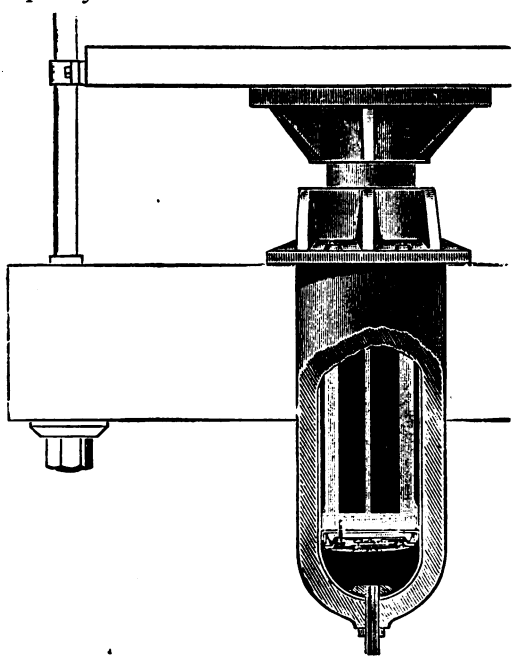


FIG. 15.

cylinder. In other words the power of the press would be 226 times the pressure or weight applied to the pump

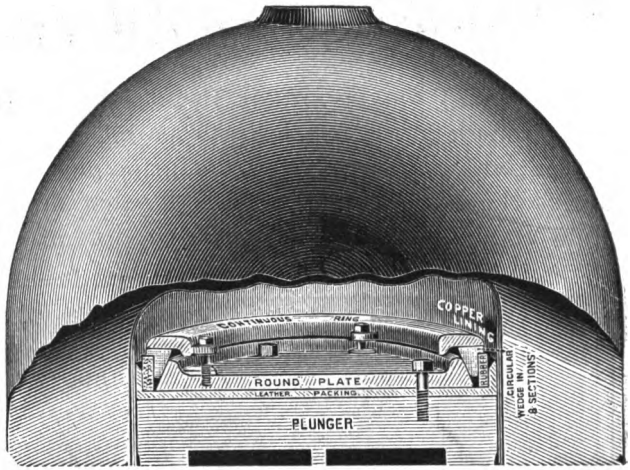


FIG. 16.

plunger. Increasing the size of the ram, or decreasing the size of the plunger, would increase the ratio and hence would give increased power to the press.

Fig. 15 shows a cylinder lined with copper and the packing fastened to the end of the ram. The ram is very heavy and strong, being made of cast iron, cross ribbed inside and fitting the cylinder only at the lower end. The copper lining

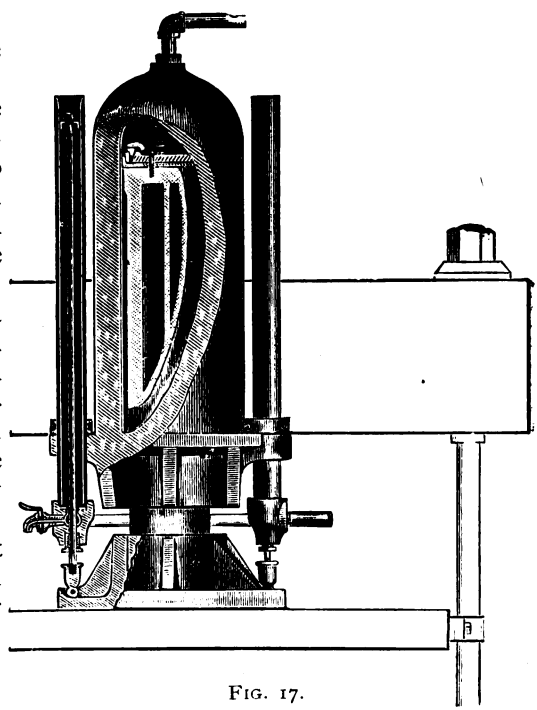


FIG. 17.

of the cylinder makes it smooth and prevents rusting. The leather packing is cup-shaped and the edge held against the copper lining by a rubber packing, which is adjustable, as shown in Fig. 16, just sufficient pressure being given to hold the leather in place and not create any friction when the press is dropped down.

Fig. 17 shows the style of packing used in our Inverted Presses. It is the same as shown in Fig. 16, and the cylinder is copper lined. The small cylinders are also copper lined and the packing being reversed draws the follower up, when the water is turned into them from the pumps.

The cylinders and rams are of sufficient length to allow the pressing of one layer, if desired, and hence are much more convenient than when blocking must be used on less than half a cheese. Valves are provided for drawing off the water from cylinder, pipes and pump to prevent freezing. Every cylinder is tested before leaving the factory to a greater pressure than it would ever be called upon to endure in ordinary work.

Hydraulic Pumps.

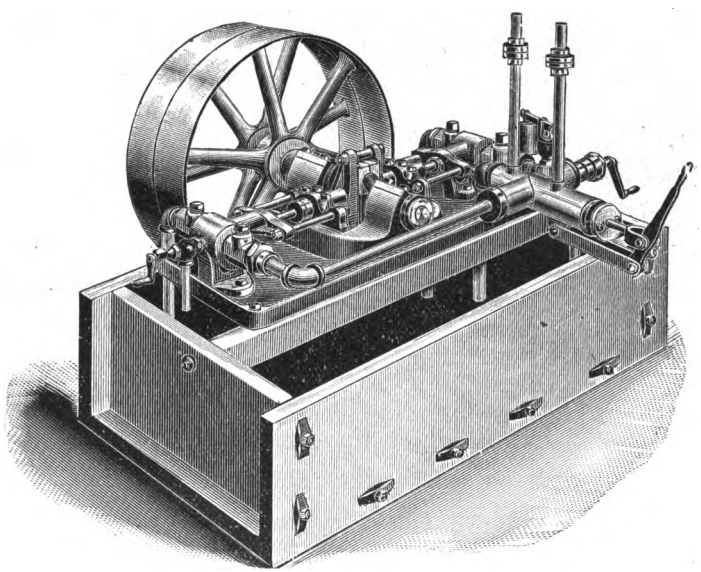


FIG. 18.

As a durable and efficient pump is one of the most desirable features of an Hydraulic Press outfit, we have not

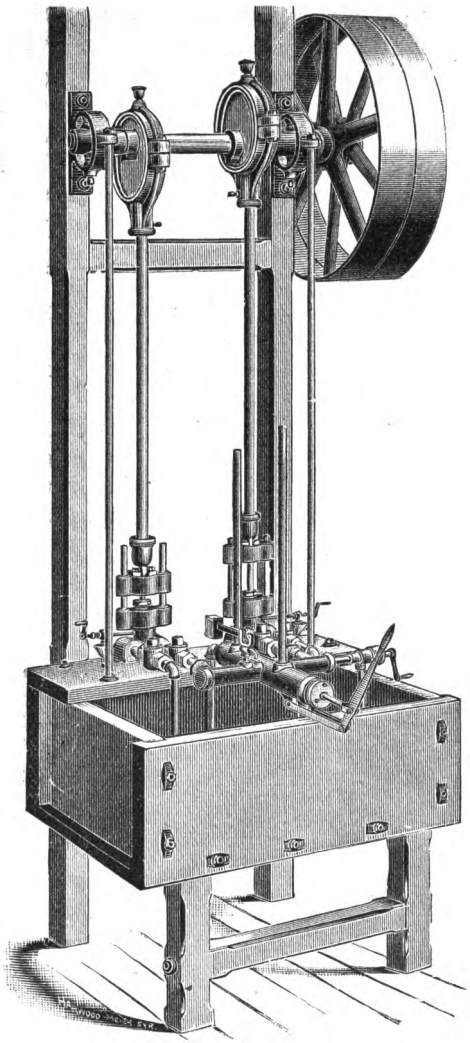


FIG. 19.

spared expense in this direction, the ones shown herewith being equal in material and workmanship to those costing many times as much. Fig. 18 shows a double plunger pump having bronze valves, plungers and sliding box in yoke. It is self contained and sets on the water vat as shown. It is made with a reverse valve for our Inverted Presses, and can be set wherever most convenient to attach power.

Fig. 19 shows the style used in cases where it is required to have the pulleys elevated, and like that shown in Fig. 18, has a reverse valve of peculiar construction, which by the simple movement of the lever shown, turns the water pressure from the large to the small cylinders or vice versa and runs the press up or down as desired.

Fig. 20 shows the style of Pump used on the upward pressure Hydraulic Presses, having in addition to the two small plungers a large one run by a crank on the end of the

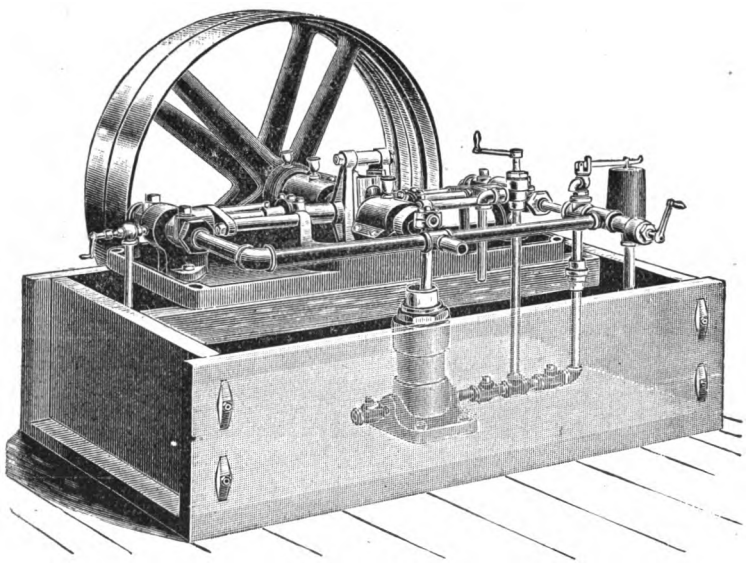


FIG. 20.

shaft, which will raise the follower of the press from 12″ to 18″ per minute, according to size of press, and gives a very great advantage in point of time over those of ordinary manufacture. This saving of time is often equal to the pressing of from one to four more cheese per day of ten hours, and the result is a clear profit which will amount to a considerable sum at the end of the season. The plungers, valves and crank-pin boxes are of bronze, the shafts of steel, the fittings and pipe extra heavy, and all the parts made with a view of giving durability and ease of access. The small Pumps have fast and loose pulleys 30″ diam. for a 4″ belt, and the large Pumps have pulleys 36″ diam. for 5″ belts.

STEAM HYDRAULIC PUMP.

When the greatest efficiency is desired with the least consumption of power the Steam Hydraulic Pump may be used to advantage. Its first cost is considerable more than a first-class belt pump, but it uses no steam that is not

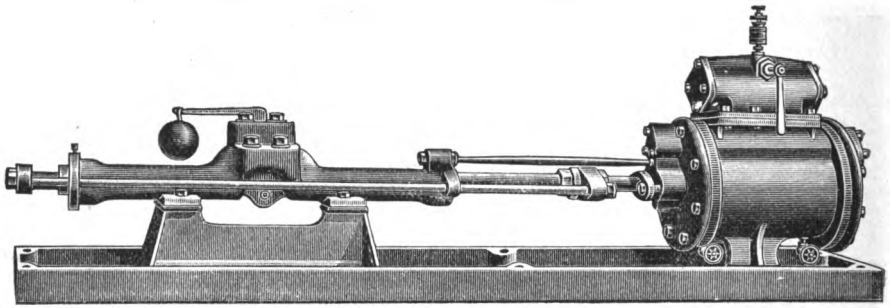


FIG. 21.

required for effective work and "follows up" without the loss of any power. In a belt pump the surplus water must overflow through the safety valve, consuming power and wearing the valve rapidly. In running a number of Presses with an accumulator it is particularly desirable. Fig. 21 represents the most simple, durable and efficient Pump for this purpose we have ever seen. The steam end is simple, the valves being actuated by the piston head, runs at high speed without concussion, and gives a long full stroke at either high or low speed. The pump end is of bronze, the plunger of steel, and the valves easily accessible. A safety valve is provided and the whole set on a base in the form of a saucer which catches any drip and conducts it through a water pipe where desired.

GRATER KNIFE GRINDER.

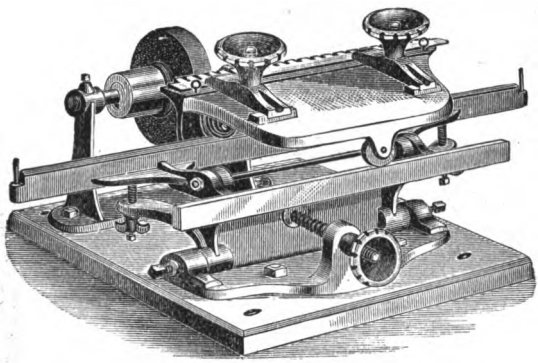


FIG. 22.

The cut represents a very simple and efficient machine for grinding grater knives. The emery wheel is 6 inches in diameter and 1¼ inch face. The pulley is 2 inches in diameter for a 1½ inch belt. The arbor is of steel. The knife is clamped near both ends, which holds it securely and at the same time straightens it if sprung. The frame holding the ways and carriage, is pivoted at the bottom and held from the wheel by the bolt passing through the stationary upright standard. The hand wheel regulates the forward movement and gives a rigid support, avoiding crowding the knife against the wheel and securing a perfectly straight edge on the knife being ground. With a desire that every one using our graters may buy one of these knife grinders, we have made the price very low, and will send to responsible parties on trial.

Price.....$7 50

FRICTION CLUTCH PULLEY.

The cut represents our Friction Clutch Pulley as used on line shaft for running the Grater, instead of a shifting belt and fast and loose Grater pulleys. An arm is keyed to the shaft having on the end shoes which slide freely on the arm and are forced outwards by knuckle joints on each side pivoted to a sliding sleeve or collar, which is actuated by the lever as shown.

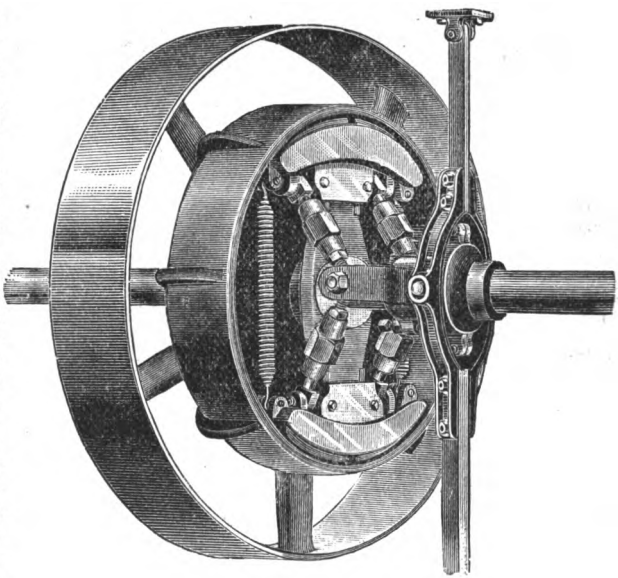


FIG. 23.

When disengaged, the springs draw the shoes towards the center and are of sufficient strength to overcome the centrifugal motion. The shoes are faced with seasoned hard maple, having end of grain outwards, and are very durable.

Price—18 inch Clutch, including Shifter, without Pulley.....$25 00

Knuckle Joint Press,

WITH STEEL BEAMS.

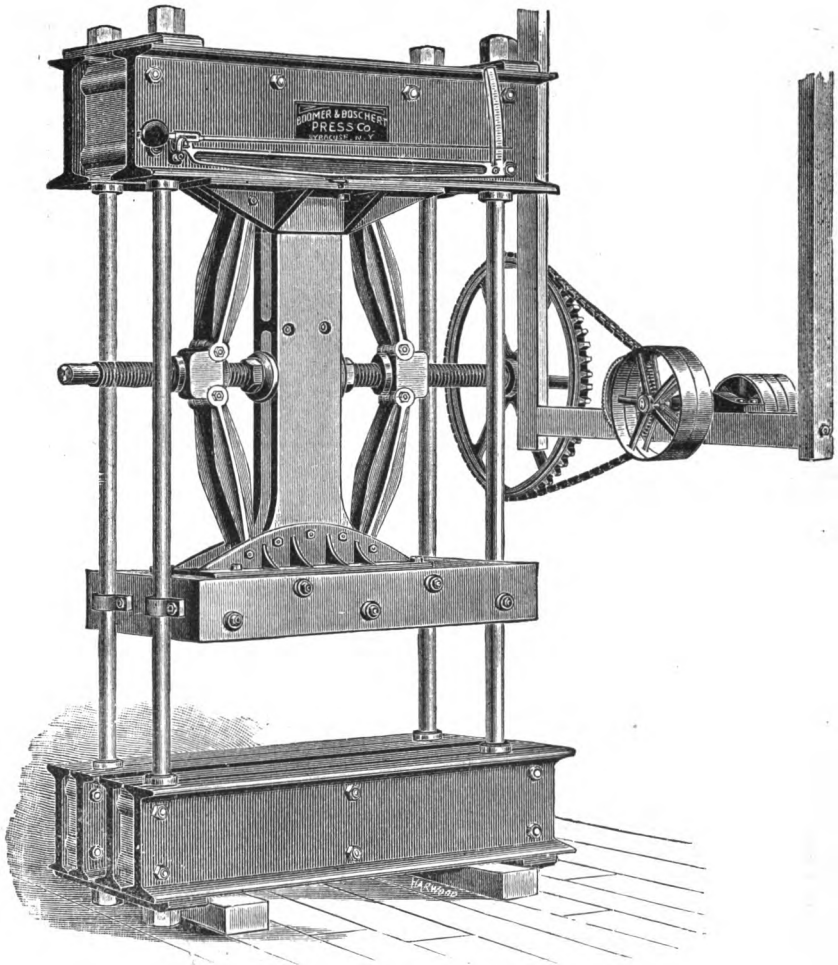


FIG. 24.

As durability in any machine is one of the prime factors to be taken into consideration, as well as first cost, we have designed Head Beams and Bases for our presses, composed of Steel Beams firmly bolted together, and of such strength as to place their breaking beyond any contingency. The following prices should be added to the regular prices of the different sizes:

For Size	E. H.,	add to price with wooden beams.....	$110 00
" "	P. C.,	" " " " "	90 00
" "	H. C.,	" " " " "	70 00
" "	W. P.,	" " " " "	50 00

Power Screw Press,

WITH STEEL BEAMS.

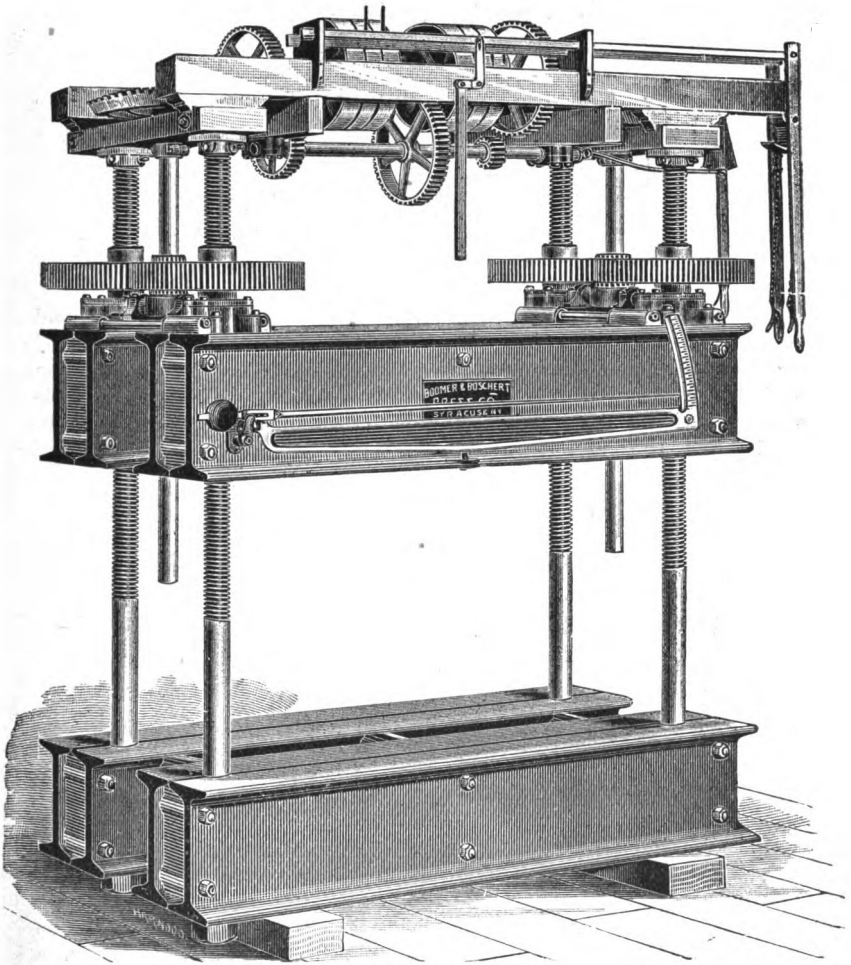


FIG. 25.

The head of this style of Press having to be made up of four beams instead of two, as in the Knuckle Joint Presses, makes the comparative cost seem more, but the price has been figured as low as possible in order to permit their more general use. The prices given should be added to the regular prices of the different sizes.

No. 02	**Screw Press,**	**add to price with wooden beams**							**$ 36 00**
No. 1	"	"	"	"	"	"	"	.....	**70 00**
No. 2	"	"	"	"	"	"	"	.....	**95 00**
No. 3	"	"	"	"	"	"	"	.....	**130 00**
No. 4	"	"	"	"	"	"	"	.....	**170 00**

Apple Grater.

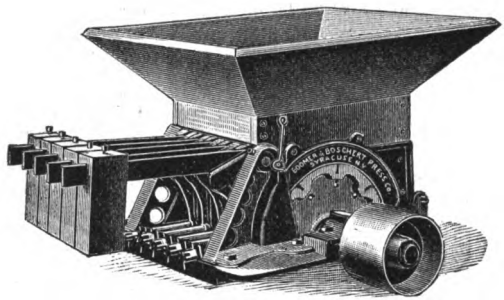


FIG. 26.

The frame of our Grater is of iron, which gives a security, strength and stability which no wood frame, however well made, possesses.

Securely attached to the frame are two standards, holding the rod upon which swings the concaves, which consists of five iron levers with movable weights, allowing any stones or other hard substances to pass through without injury to the knives.

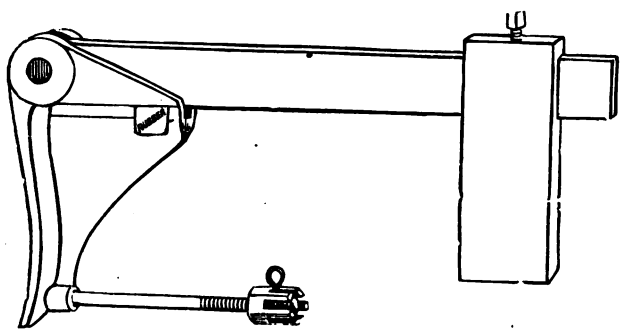


FIG. 27.

The concaves are made in two parts, the lever on which the weight is hung being wrought iron, and resting on a rubber spring or cushion, placed in the recess in the concave proper, and which serve to break the sudden shock or concussion caused by the rapid passage of hard substances between the concaves and cylinder. (See Fig. 27.) To the lower ends of the concaves is rigidly attached a one-half inch bolt, upon the end of which is a pronged nut which rests against projections on the frame.

By turning the nut, the distance between the concaves and the cylinder can be very nicely adjusted This can be done while the grater is in motion and without the use of a wrench. A hole is drilled through the bolt and a spring pin put through between the prongs of the nuts, which prevents them from turning by the jar and working of the concaves.

The Cylinder is of iron, turned and put in accurate running balance, each Grater being tested at a speed of 2,500 revolutions before leaving the factory. It has planed grooves to receive the knives—eight in number—which are adjusted by square headed set screws, above and below at each end, and held firmly in their places by a heavy wrought iron band shrunk on each end of the Cylinder. The heads of the Cylinder being solid and close to the ends avoids the accumulation of pomace inside. (See Fig. 28.)

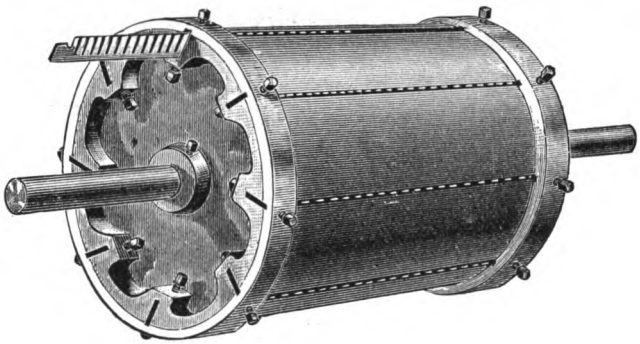


FIG. 28.

The knives are made of finely tempered steel and can be driven straight out without having to be first driven down. We can furnish knives corrugated as in Fig. 29, or with teeth milled through the blade as in Fig. 30.

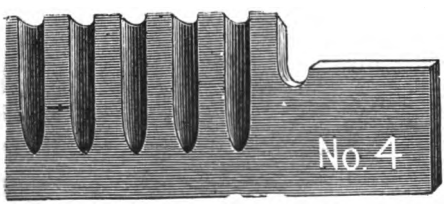


FIG. 29.

The shaft is of steel 1 7-16 inches in diameter, running in babbitted boxes 4¼ inches long, and is of sufficient length to allow the pulley to be put on either end. The Grater should run 2,000 revolutions per minute, but with one or two horse power that speed can not be obtained. The knives may then be set finer, and the Grater will do as good work but not so fast. The hopper is of hard wood oiled and varnished, and is hinged to the frame at the back and hooked to the standards in front. It can thus be thrown back out of the way while changing the knives.

When fast and loose pulleys are desired, $3.00 extra will be added to price.

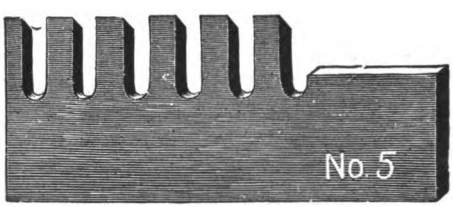


FIG. 30.

PRICES.

Grater, with one set of Knives	**$45 00**
Extra Set of Knives—Eight	**4 00**

DIMENSIONS.

Diameter of Cylinder	11 inches.
Length of Cylinder	12 inches.
Face of Pulley	5½ inches.
Diameter of Pulley	4, 5 or 6 inches as ordered.
Weight of Grater	350 pounds.
Number of Knives, Eight	1 inch wide, 5-32 inch thick, and 12 inches long.
Capacity	from 50 to 400 bushels per hour, according to power.

Power Attachment

FOR KNUCKLE JOINT PRESSES.

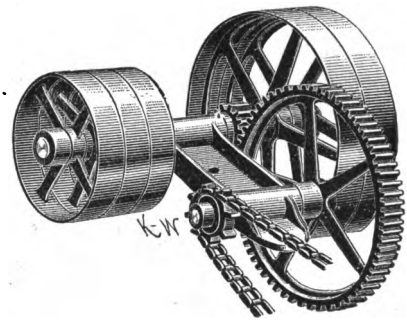


FIG. 31.

A few years ago such a thing as running a Cider Press by power was almost unknown, probably 90 out of every 100, or even a larger proportion, being worked by hand. Now all is changed, and all the larger and a large portion of the smaller mills, have power presses.

This revolution has been chiefly brought about by the simplicity, perfect working and low cost of our Power Attachment, shown in Fig. 31. It not only saves manual labor, but it also saves the juice, and tends to keep a more steady and even pressure upon the pomace, and never tires out.

It is operated by belts open and crossed, and the power is communicated to the Press by a chain belt, passing over a chain wheel, upon the end of the Press screw. All our Power Attachments have three speeds, one DOWN SLOW FOR REGULAR PRESSING, ONE DOWN FAST to avoid loss of time in getting pressure on to the cheese, and one for running Press up fast.

PRICES, &c.

Kind of Press.	Size of Large Pulleys.	Size of Small Pulleys.	Size of Chain Wheel on Screw.	Length of Chain.	Price.
WINE PRESS.....	16 x 3 inches.	10 x 3 inches.	30 inches.	14 feet.	$40 00
HAND CIDER.....	22 x 3 "	12 x 3 "	36 "	16 "	45 00
POWER CIDER....	22 x 3 "	12 x 3 "	48 "	22 "	50 00
EXTRA HEAVY...	28 x 3 "	12 x 3 "	52 "	22 "	60 00

Pump.

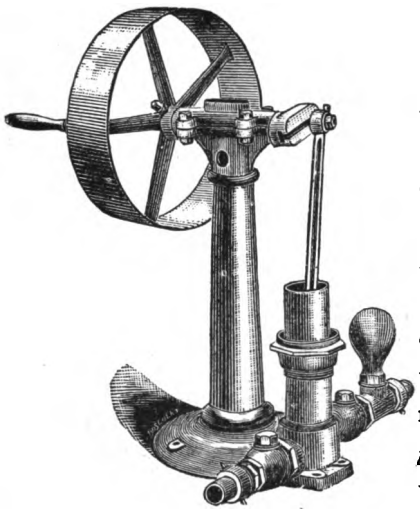


FIG. 32.

The Plunger, Pump Barrel, Valves, Air Chamber and Hose Connections of this Pump are of bronze, so that no cider can come in contact with iron. The connecting rod is of bronze with steel pin in the lower end, and babbitted split box on upper end so that the wear can be taken up. They should be run *not to exceed 80 revolutions per minute.* Handles are provided to work the Pump by hand when necessary.

PRICES.

No.	Size Cylinder.	Stroke.	Suction.	Discharge.	Pulley.	Capacity per Min.	Price.
1	3 inches.	4½ in.	1¼ in.	1 in.	16 x 4	10 gal.	$35 00

Fig. 33 shows our Rotary Pump with valves, case and connections of bronze so that no cider or vinegar can come in contact with iron. It has 1¼ inch suction and 1 inch discharge The pulleys are 10 inches diameter for 3 inch belt. All fittings are provided ready for attaching hose. Price $35.00.

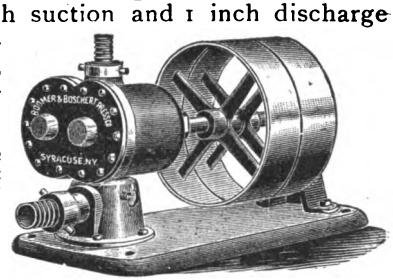


FIG. 33.

Common hose should not be used for suction, as it is not stiff enough and will collapse and prevent the Pump drawing. Four-ply steam hose may be used where the suction is short, but where over 8 or 10 feet, heavier steam hose, regular wire wound suction hose or copper pipe should be used, with a foot valve on lower end.

These are suction or force pumps, and will easily elevate cider fifty feet.

Apple Elevator.

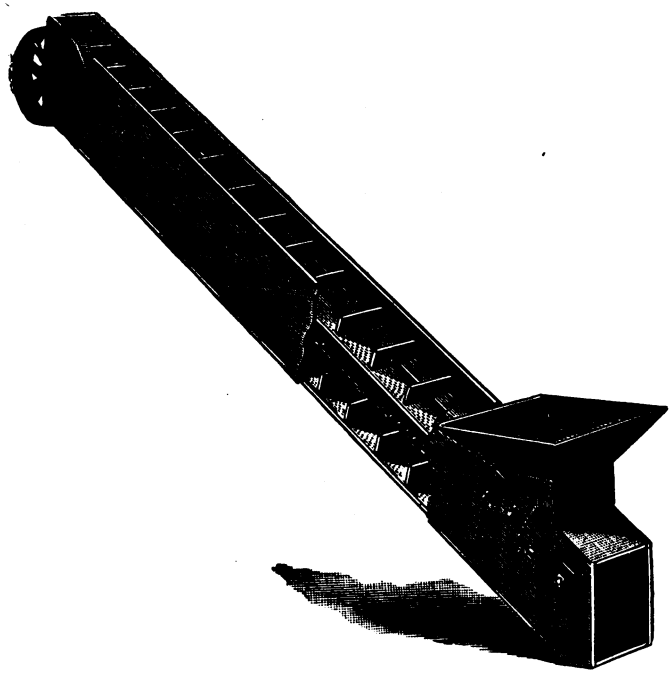


FIG. 34.

Each season more fully demonstrates the fact that cider makers are awakening to the necessity of saving manual labor, and that only by the closest economy can they compete with the large merchant mills. Each year has increased our sale of elevators, and they have become a necessity in every well regulated mill.

The above is a section of a very cheap and efficient Elevator. The chain runs over a sprocket gear at the head and foot of Elevator, the one at the head being furnished with fast and loose pulleys. The foot gear has "take up boxes" for taking up the slack of chain as it wears. The scrapers are of wood 3 inches wide and from 8 to 11½ inches long, bolted to lugs or projections on the chain. When run at from 50 to 75 revolutions per minute, it will elevate from 5 to 10 bushels per minute. It is perfectly reliable, runs easily, cannot slip, works at any inclination or carries on a level. It can be put up in a variety of ways and can be adapted to all situations.

To elevate perpendicularly, or nearly so, requires a modification of the scrapers, which increase the cost.

When designed to run from a pulley on the grater shaft as shown in Fig. 6, we put on a geared head to reduce the motion, and do not furnish fast and loose pulleys. When the Elevator is to be set parallel with the line shaft we put on bevel gears at a slightly increased cost. We can furnish to order any length desired, of good whitewood, well finished and varnished.

PRICES.

Centers 12 feet,	width	8	inches	inside,	open	frame—No.	57	chain	.....	$25 00
"	12	"	"	10	"	"	closed	"	"	"	.....	32 00
"	14	"	"	10	"	"	"	"	No. 77	"	.....	38 00

We also furnish the iron work when desired at the following

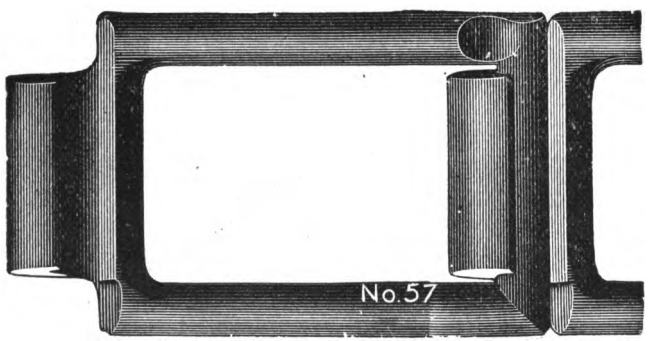
PRICES.

Plain Head Gear, with 2 Pulleys 22 x 3 inches	**$13.00**
Foot Gear, with take up boxes	**4.00**
No. 77 Chain, per foot with Scraper	**.21**
No. 57 Chain, " " " "	**.15**

Should it be required to elevate more than 30 feet, we furnish in place of the pulleys 22 x 3 inches, a pair of pulleys 24 x 4 inches at an additional cost of $3.

Link Belting.

We have for many years used the Ewart Detachable Link Belting for driving our presses, moving platforms and for elevators, and for the purpose of enabling our customers to more readily order the required size, either for new work or repairs, we give the following illustrations, which are FULL SIZE except the "F 2" link.



FIG, 35.

Fig. 35 shows size No. 57, used several years ago for driving our lighter presses, and now used on short elevators and for moving the Double Plattorms on our light presses.

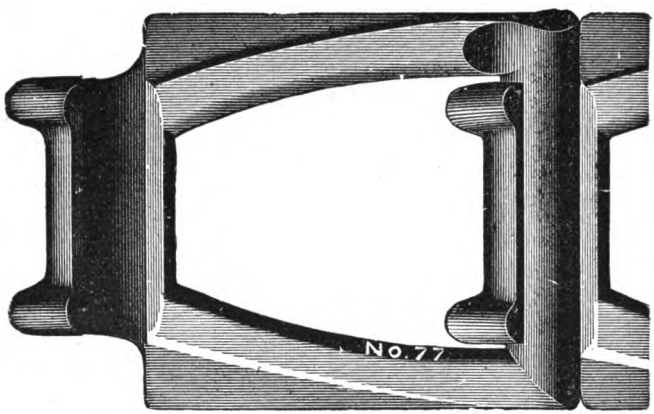


FIG. 36.

Fig. 36 shows size No. 77, used for driving our Wine Press, Hand Cider Press and Power Cider Press and for Elevators. It is also used on all Double Platforms above the Wine Press size.

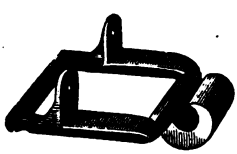


FIG. 37.

Fig. 37 shows the link for elevators, to which is bolted the scrapers. It is designated as "F 2" and furnished in sizes to suit the chain. We can also furnish to order other styles of links, either for single or double belt elevators.

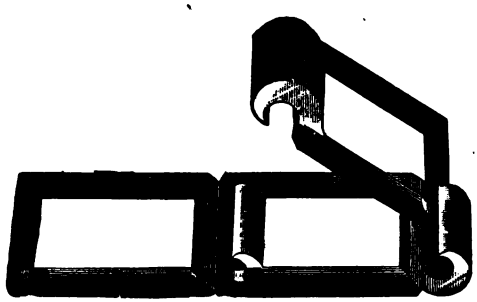


FIG. 38.

Fig. 38 shows the method of coupling the links together.

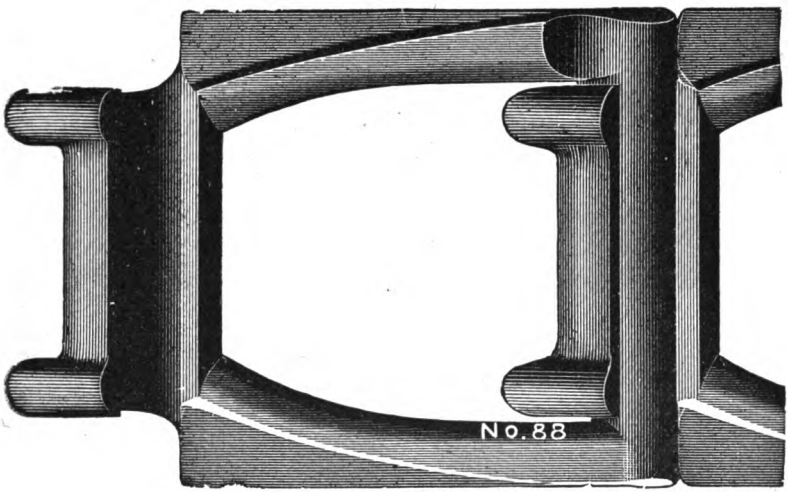


FIG. 39.

Fig. 39 shows size No. 88, which is now used in our Extra Heavy Presses. We have found it of ample strength and more durable than the steel chain used heretofore.

THE "BECKER" POMACE CHUTE.

FIG. 40.

One of the most disagreeable features of a well ordered Cider Mill has been the spattering of the pomace, when laying up the cheese where the Grater is located overhead. Many devices have been tried, some of them fairly successful, but none of them containing merit enough to warrant their general use.

Fig. 40 represents a galvanized iron telescopic chute which can be easily attached to a square wooden spout of suitable length to reach from the Grater to the platform when the chute is extended. The upper end of the chute has a galvanized iron slide for shutting off the pomace, and several sections beneath sliding in each other, with a cord attached to the lower section so it can be raised from the rack to spread the pomace. The chute is about twelve inches long when closed, and when open is of sufficient length to reach clear down to the platform so that when the slide is drawn and the pomace drops, it effectually prevents all spattering.

Price..... $10 00

Racks.

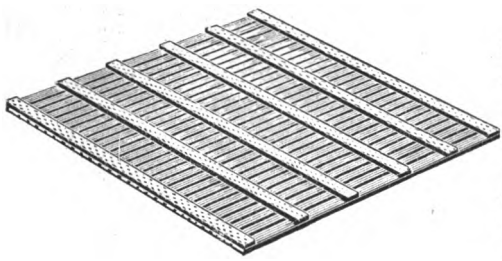


FIG. 41.

The Racks as shown in Fig. 41, are made square of wooden strips ½ inch thick by ⅞ inch wide, placed ¼ inch apart, with five or more elm strips 2 inches wide and ⅜ inches thick nailed across, as shown in cut. The strips are rounded on the edges so as not to injure the cloth. Wrought nails are used of sufficient length to securely clinch.

PRICES.

36 inches square				**$0.75 each.**
48	**"**	**"**		**1.00 "**
58	**"**	**"**		**1.38 "**
62	**"**	**"**		**1.50 "**
62	**"**	**"**	(Extra heavy)	**1.70 "**

BEVELED EDGE RACKS.

Fig. 42 shows our Beveled Edge Rack, the advantage of which is in pressing the edges of the layers where the ordinary racks leave them moist, and in its increased strength and lasting qualities.

FIG. 42.

We will furnish them at the following

PRICES.

42 inches square				**$1.15 each.**
48	**"**	**"**		**1.30 "**
58	**"**	**"**		**1.75 "**
62	**"**	**"**		**2.00 "**
62	**"**	**"**	(Extra heavy)	**2.25 "**

DOUBLE RACKS.

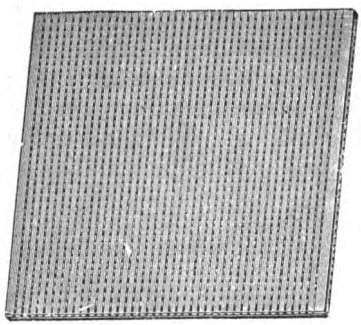


FIG. 43.

These are made with the same number of slats both ways, closely nailed, and while somewhat heavier and more difficult to clean than the plain or beveled edged, are very strong and durable.

PRICES.

36 inches square	....	$1.25	each.
42 "	"	1.50	"
48 "	"	1.75	"
58 "	"	2.25	"
62 "	"	2.50	"

Form.

The form is square inside and 3½ inches deep. It is made by nailing together boards 1 inch thick by 3½ inches wide, in the form of the sides of a box. To stiffen and guide against, a board is nailed across each end as shown in cut, and a casting is bolted in each corner to stiffen it and keep it square.

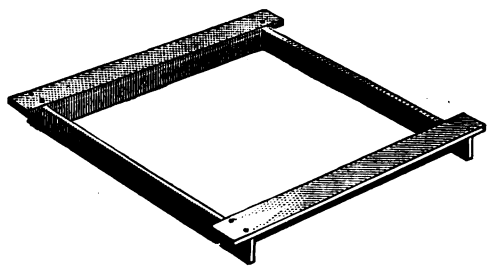


FIG. 44.

HOW TO LAY UP A CHEESE.

Commence on the platform of the Press and lay a rack; place thereon a form of three and one-half inches deep, and five or six inches smaller each way than the rack. Over this form spread a cloth, and fill the form even full of pomace, then turn in the sides and ends of the cloth over the pomace, the cloth being of sufficient size to cover. The form is then raised and another rack placed on the layer of pomace thus made, the form being placed on the new rack. a cloth again placed over it and another layer of pomace put in as before. Eight or ten racks are used in one cheese, and as many cloths less one. When the last layer is formed, the form is taken off and a rack placed. The follower is then put on and the pressing commenced. By placing the racks alternately across and lengthwise of the platform, the cheese will be less liable to move or cant over, and the rack to spread. A guide should be used in laying up the cheese, so as to have form cover every time directly over the last layer.

Cider Cloth.

Our immense sale of Cloth each season demonstrates the truth of our claim of furnishing the *very best in use.* It is made of long staple Texas cotton, woven quite open, and of the same strength in both warp and filling. We shall as far as possible carry in stock the following widths and qualities:

BY THE YARD.

Medium,	**72**	**inches**	**wide**	**40**	**cents**	**per**	**running**	**yard.**
"	**84**	"	"	**45**	"	"	"	"
"	**96**	"	"	**52**	"	"	"	"
Heavy,	**52**	"	"	**35**	"	"	"	"
"	**72**	"	"	**52**	"	"	"	"
"	**84**	"	"	**59**	"	"	"	"
"	**96**	"	"	**67**	"	"	"	"
Extra Heavy,	**52**	"	"	**40**	"	"	"	"
"	**84**	"	"	**68**	"	"	"	"
"	**96**	"	"	**76**	"	"	"	"

At the following prices when sold in less than full sets:

HEMMED READY FOR USE.

Medium,	**66 x 66**	**inches**	**wide**	**$ .85**	**each**	**for**	**36**	**inch**	**Racks.**
"	**72 x 72**	"	"	**.95**	"		**42**	"	
"	**84 x 84**	"	"	**1.20**	"		**48**	"	
"	**96 x 96**	"	"	**1.55**	"		**58**	"	
"	**72 x 102**	"	"	**1.20**	"		**48**	"	
"	**84 x 118**	"	"	**1.65**	"		**58**	"	
"	**96 x 126**	"	"	**2.00**	"		**62**	"	
Heavy,	**66 x 66**	"	"	**1.15**	"		**36**	"	
"	**72 x 72**	"	"	**1.30**	"		**42**	"	
"	**84 x 84**	"	"	**1.55**	"		**48**	"	
"	**96 x 96**	"	"	**1.95**	"		**58**	"	
"	**72 x 102**	"	"	**1.70**	"		**48**	"	
"	**84 x 118**	"	"	**2.10**	"		**58**	"	
"	**96 x 126**	"	"	**2.50**	"		**62**	"	
Extra Heavy,	**84 x 84**	"	"	**1.90**	"		**48**	"	
"	**96 x 96**	"	"	**2.25**	"		**58**	"	
"	**84 x 118**	"	"	**2.40**	"		**58**	"	
"	**96 x 126**	"	"	**3.00**	"		**62**	"	

It is a well known fact that the strength of a chain is only that of its weakest link. This is equally true of cloth, as the weakest thread will break first. Hence cloth made of five-ply warp and four-ply filling has only the strength of the four-ply threads, or cloth having the same size thread both ways and woven with 12 threads per inch one way and 8 the other, has only the strength of the weakest way. Cloth should be woven open enough to allow for the proper amount of shrinkage or "fulling," otherwise after a few times use it will be so close as to necessitate running the presses slower or burst the cloths. It is far better to run the presses slow a few times when cloth is new and open, than to be obliged to run slow the greater part of the season because they are too close.

Each thread in both warp and filling of our cloth is composed of an equal number of small threads, which designate the "ply," and is "balanced" both in twist and ply.

Please note difference in making comparisons.

Samples sent free on application.

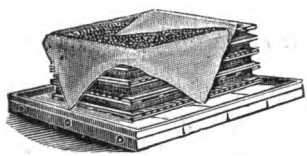


FIG. 45.

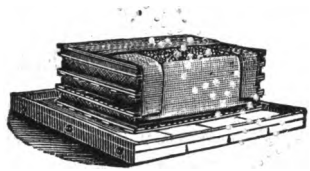


FIG. 46.

As some of our customers using the smaller presses prefer to have their cloths made square, folding the corner towards the center, as shown in Fig. 45, we have added to our sizes 72 inches square for 42 inch racks, 84 inches square for 48 inch racks, 96 inches square for 58 inch racks. For the larger sizes our regular cloths laid up as in Fig. 46, will be preferred.

WASHING MACHINES.

In order to accomplish the most work and to get the best product it is absolutely necessary to keep the cloths clean and sweet. A press can be run much more rapidly when the cloths are open and the cider runs freely—and with much less power. The keeping qualities of cider are greatly enhanced by having the cloths sweet, and this can only be obtained by frequent washings. It will be found economical to have an extra set of cloths for each press, thus keeping one set in the wash each day. We can furnish a Washing Machine which will take one large or two small cloths and clean them very effectively and rapidly. It is a hand machine 30 inches long, the iron work galvanized, and the rubbers of hard wood. It will be found of ample size for an ordinary custom mill.

Price.....$10.00

Platforms.

One of the most important factors in the economical management of a cider mill is to have the kind of Platform best suited to the situation, hence we describe the various styles we make.

DOUBLE PLATFORM.

The Double Platform as in Fig. 1 and 8 is mounted upon trucks which rest upon an iron track, giving it a movement sufficient to bring either cheese under the follower of the Press. A wooden roller is placed upon each side of the Press bed to prevent the middle of the Platform from sagging when loaded.

The shifting gear is worked by a crank, and is so arranged as to move the Platform easily and quickly across the bed of the Press.

The posts on the middle of the Platform are for guides in laying up the cheese. By them two V pieces are held in the proper position to receive the racks and form.

The Cider may be taken from one end, or when it is desired to keep the Cider from each cheese separate, a partition may be put across the center and the Cider can be taken from each end.

Price.....$40.00 to $75.00, according to size.

REVERSIBLE PLATFORM.

This has proved a very popular style of Platform, (see Fig. 2, 7 and 11,) especially in custom mills. By placing the Grater over the outer end of the platform, the pomace falls directly on the center of the cheese, making it easy to spread evenly. The wheels underneath the platform are large, turned on their face, have anti-friction roller bearings and resting on a heavy iron track, makes the rotation of the platform an easy matter. One man can easily turn the largest size when fully loaded without the aid of levers, and hence require only a circle described by the length of the platform. The stops on the end strike against the rods or screws of the Press, and brings each cheese exactly central under the Press, saving the time of centering the cheese. Both ends of the platform are loaded and unloaded in the same position, one cheese being pressed while the

other is being laid up. The base of the press can be let in level with the floor, so the track can be placed on the floor, or the track can be elevated to the height of the base as preferred. Each customer's cider can be kept separate if desired, by means of a double vat placed under the center. With this vat the cider from each end runs into its own compartment regardless of the position of the platform.

Price.....$40.00 to $75.00, according to size.

COMBINATION PLATFORMS

As shown in Fig. 13, are Single Platforms on wheels which may be run from the Press on to a car of sufficient length to hold two Platforms. This runs in front of the Press, and while one of the Platforms is in the Press the other is on the car being filled. When ready the pressed cheese is run on the empty end of car, which is then run along and the full cheese run from the car into the Press. This enables the operators to lay up the cheese always in the same place and to have the Grater where most convenient, as the tracks may be extended where desired. The pressed cheese on the car can also be run, on properly arranged tracks, to any point for unloading. The Racks and Cloths being thrown on the empty end of Platform and conveyed back to the point where the cheese is again to be laid up. By having the requisite number of cars, any number of Presses can be very economically operated, and two or more short transfer cars may be used if desired.

PRICE.

2 Platforms, 1 Carriage. 20 feet Track.....$50.00 to $86.00.

EXTENDED OR DRAG PLATFORMS.

This style (shown in Figs. 6 and 10) will be furnished to those who desire them, of sufficient length to hold three cheese. The cheese is laid up on one end and drawn into the Press by a rope and suitable gearing. It has the advantage of laying up the cheese always at the same place, but the disadvantage of having to carry the Racks and Cloths from the back to the front of the Platform for each cheese.

PRICE.

(Including two bottom racks).....$47.00 to $75.00 according to size.

PLATFORMS ON WHEELS.

Which may be filled at any part of the room and run on properly arranged tracks under the Press, are in some situations very desirable. After the pressing they can be run to any point and unloaded. The ends of the platform project to form receptacles for the Racks and Cloths when not in use which are thus conveyed with the Platforms where wanted. A post and V piece at each corner form guides in laying up, and support the cheese while being moved.

Price, each .....$40.00.

Where Single Platforms are used it is customary to lay the cheese up in the Press, and the work is attended with much inconvenience. We show in Fig. 5 a very simple platform by which the Grater may be located so as to grind directly on to the platform, and when the cheese is laid up it can be run into the Press. This method also allows the blocking to be bolted to the follower of the Press, and obviates the necessity of handling it for each cheese.

Price of Platform and Tracks.....$20.00 to $30.00, according to size.

TANK CLAMPS.

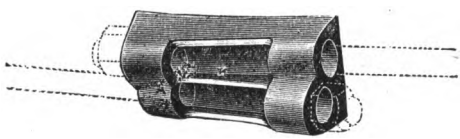


FIG. 47.

These clamps will be found very convenient and easily applied. The bands are common ⅝ inch iron rods with threads and nuts, and passing each other in the clamp, as shown. On large tanks two or more can be used, and will be found cheaper and handier than welding,

PRICES.

Less than One Hundred..... ..12 cents each.
One Hundred and over.....10 cents each.

OILS, &C.

We have been frequently called upon to "prescribe" for a press in which the screw "trembled" when under very heavy strain—or a "squeak" was heard which could not be located. In a majority of cases the trouble has disappeared at once when a good quality of oil was used. In many cases the fault (if a knuckle joint press) has been the want of proper lubrication of the ends of the arms bearing in the upper socket. These being somewhat difficult to get at, have had to do with one oiling or greasing in a season, and in some cases none at all. We have never found any oil equal to castor oil, but as it is of a gummy nature the parts should be occasionally cleaned. Grease or solidified oil may be used for the gearing of our Screw Presses.

Extras.

We desire to impress upon the minds of those ordering Extras, Repairs, &c., that during the many years we have been in business, our sale of Presses and Graters in the aggregate have been very large, and reached into the thousands, and that while we have a record of our sales, it must necessarily be imperfect, except as to the original purchasers. Hence it will save much time and trouble if those ordering will at least give date of purchase, if not the name of person to whom the Press was shipped. In case of repairs a rough pencil sketch, giving dimensions, would be of great help. In ordering Racks and Cloth, state size and quality as well as number wanted, and if Grater Knives, state the year Grater was bought, and style of knife desired, or lay one of the knives on a piece of paper, mark around it, and send us the pattern.

The P. & B. Paint

—FOR—

VATS, BARRELS, TANKS, RACKS, PLATFORMS OF PRESSES, ETC., ETC.

The peculiar interest this Paint has for Cider and Vinegar makers is that it is acid proof, neither cider or vinegar having the slightest effect upon it.

In painting tanks great care should be taken, as the fumes of the paint are gaseous, similar to turpentine. When one goes into a deep tank, where no ventilation is to be had, it is better to inhale the air through a rubber hose and exhale through the nose.

As this Paint evaporates very rapidly, only a small quantity should be drawn at a time when painting.

We have sold large quantities of this Paint and it has given great satisfaction.

PRICES.

Special Brand--In Gallon Cans			$1 40	per gallon
" " " 5 " "			1 30	"
" " " Bbl. Packages			1 20	"
No. 2 " " Gallon Cans			1 30	"
" " " 5 " "			1 20	"
" " " Bbl. Packages			1 10	"

Steam Evaporators

—FOR—

CIDER JELLY, &C.

A few years ago Cider Jelly was a thing unknown in the market. It now fills an important place among the prepared fruit relishes. As an article of food, it possesses the merit of being cheap, wholesome and delicious—a combination which rarely occurs, but which is quickly appreciated by caterers and householders.

FUNDAMENTAL PRINCIPLES.

In the evaporation of saccharine liquids there are certain fundamental principles involved, which are well understood by both practical and scientific men, and with which every manufacturer should be familiar.

FIRST—The liquid must be thoroughly defecated or cleansed. This is done by heating and carefully skimming.

SECOND—It should be reduced to the proper density, with as little carbonization and oxidation as possible. This is one of the most important principles involved in the manufacture of Cider Jelly, and is the most difficult of accomplishment. No appliance has yet been devised but will, to a greater or less extent, discolor the product. Even the vacuum pan, though costing several thousand dollars, and introduced by sugar manufacturers for the express purpose of preventing oxidation (or coloring) will not in the case of Cider Jelly entirely overcome the difficulty.

THIRD—No degree of heat will injure the product, so long as it contains a large percentage of water.

FOURTH—The denser the liquid, or the more nearly it becomes freed from water, the more rapid becomes oxida-

tion and carbonization under heat; therefore the longer it is subjected to heat after the bulk of water is thrown off, the darker the product will become.

FIFTH—Long continued heat prevents or destroys granulation and in cider prevents jellying.

These rules apply with equal force to all saccharine liquids, whether sugar cane, sorghum, cider, or other juices.

APPLES.

To make good jelly, it is necessary to have good sound fruit well ripened. A few rotten apples will destroy its flavor and give it a sticky consistency. Fermentation about the grater, vats, presses, racks, cloths, or pipes, will have the same result. Therefore everything should be kept sweet and clean.

MIXING APPLES.

The flavor of the jelly will correspond to that of the apples used. If a sweet jelly is desired, make it from sweet apples; if medium, mix sweet and sour together. All sour apples will make the jelly very tart, but still many like it so. The finest flavor, and one that suits most people, is produced by mixing about one-third very sweet with two-thirds of very sour apples. It gives a jelly that has a character. It is like a pie made from sour apples with plenty of sugar; not liable to that insipidity which would result from using fruit of no decided character.

SWEET JELLY.

When a sufficient supply of sweet apples cannot be procured, sweet jelly may be made by adding syrup in the proper proportions. Syrup may be easily made by taking a barrel of sugar, and mixing it with the proportion of water in the Defecator, boiling and drawing off into casks, when it is ready for use. The

QUANTITY PRODUCED.

per bushel varies, according to the season and apples. The sugar in early apples being only partially developed, will produce a smaller amount of jelly, and that of poorer

quality, than later apples, well ripened, when the amount of sugar is at the maximum. Also whether the pomace is repressed, soaked, steamed, or otherwise treated, to extract as far as possible the sugar. Owing to this diversified treatment, the amount varies from five to eleven pounds per bushel of fifty pounds.

POMACE JELLY.

It has been demonstrated that the cider produced when the pomace is repressed, after being reground, soaked, or steamed, will make lighter colored and firmer jelly than the cider from first pressings, but lacks in flavor. If the juice from the two pressings are mixed and evaporated, the quality, quantity and flavor are much improved. Care must be taken to avoid fermentation during this process.

THE "BOOMER" STEAM EVAPORATOR.

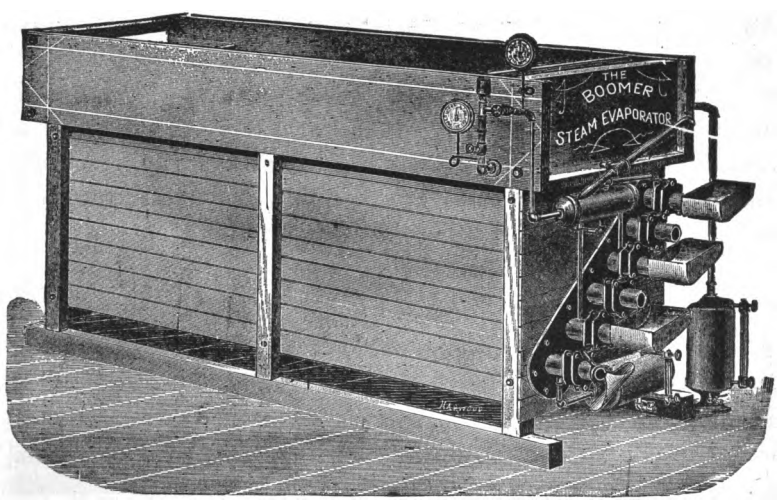


FIG. 48.

Consists of a Defecator and an Evaporator preferably combined, as shown in cut, (Fig. 48) but the action of each is separate, and different steam pressures may be used on each.

The Defecator (Fig. 49) is a vat lined with copper and having inside, on the bottom, a series of parallel copper tubes, connected at each end with a manifold. The manifold at the back end is connected with the steam and exhaust pipes through the sides of the vat in such a manner that the whole system of tubes may be turned upright for cleaning without disconnecting the steam or exhaust pipes.

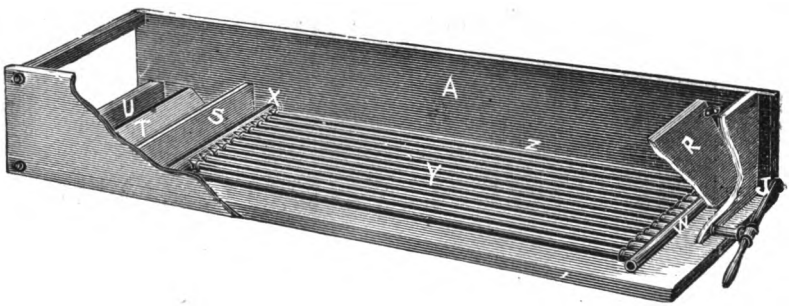


FIG. 49.

The steam is controlled by a globe valve, and a steam gauge located between the valve and the tubes, serves to show at all times the pressure in the tubes and consequent heat. A board (S) is placed loosely between guides at the front end of the Defecator and just clear of the manifold. This is so cut at the bottom as to leave a space of about one-half inch for the flow of juice under it. Between this board and the end of the vat is a partition, inclined on the inner side, over which is swept the skimmings as they collect in the still space between the incline (T) and the board (S). At the back end of Defecator is a board (R), which serves to direct the foam toward the front. It is removable for cleaning. Beneath the Defecator is the Evaporator, which consists of a series of copper tubes of large diameter, surrounded, or jacketed by still larger wrought iron pipes, leaving a space between the pipes for the steam. The tubes are set on an incline, gradually increasing in pitch towards the lowest. Copper pans are attached to one end of each tube to conduct the liquor from the tube above, and on the lowest tube is a tip-spout for guiding the jelly or

syrup into the proper receptacles without dripping. The frame in which the Evaporator pipes are placed is enclosed to prevent radiation of heat. Valves regulate the steam, and gauges show the pressure used. A swing pipe or valve draws the liquid from the Defecator to the Evaporator.

PRICE LIST

OF THE

Boomer Evaporators.

SIZE OF EVAPORATORS.	Floor Space.	Heating Surface of Copper Tubes.	Boiler Power Required.	Jelly Capacity per Hour.	Price f. o. b. in Syracuse.
	Ft	Sq In.	H. P.	Lbs.	
No. 4.	3 x 8	3,700	15	50 to 80	$180
No. 6	3 x 10	5,000	20	75 to 125	240
No. 8	3½ x 10	6,550	25	100 to 175	300
No. 10	3 x 12	8.000	30	125 to 225	360
No. 12	3½ x 12	9,850	35	150 to 275	420
No 16	3½ x 14	13,800	45	200 to 350	500
No. 20	4 x 14	19 800	60	250 to 450	600

Steam Coils,

FOR JELLY, CIDER SYRUP OR SORGHUM.

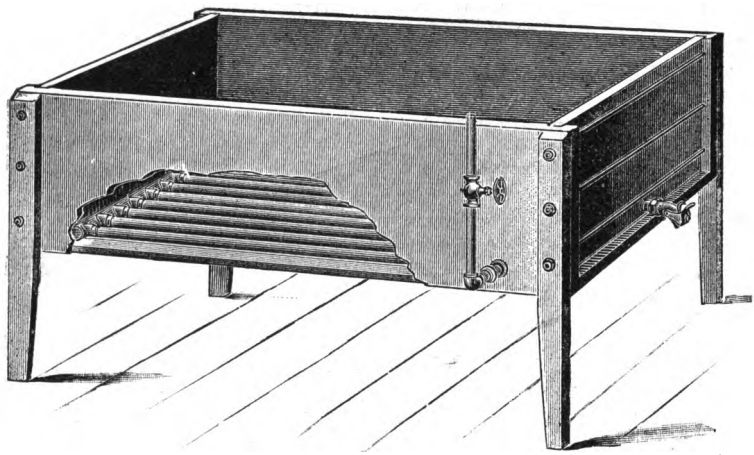


FIG. 50.

Fig. 50 shows a vat with copper pipes arranged the same as in the Defecator described on page 59, except it has no "scum board," the impurities being removed by hand skimmers A quantity of juice is put in the vat, boiled and skimmed until reduced to the required density, then it is drawn off and the operation repeated. For scalding cider it is very convenient, and also in cases where customers wish their cider reduced two to one, three to one, etc., as by measuring the raw cider when first put in it will be shown just how deep it should be when reduced to the required density. This style may also be used for the defecation of sorghum, manufacture of apple butter, etc. The coils can be turned up on end for cleaning.

DIMENSIONS, ETC.

As shown in Fig. 50.

SIZE.	Estimated Horse Power.	Inside Length.	Inside Width.	Inside Depth.	Heating Surface of Pipes.	Price with Copper Coil.
A	6 to 10	55 inches.	20 inches.	20 inches.	1400 sq. inches.	$ 50 00
B	12 to 20	72 inches.	29 inches.	22 inches.	2700 sq. inches.	75 00
C	18 to 25	84 inches.	37 inches.	24 inches.	3900 sq. inches.	100 00

SEMI-CONTINUOUS EVAPORATOR.

Figs. 51 and 52 show our Semi-Continuous Evaporator as now constructed with all the latest improvements, and we believe is perfect in every detail.

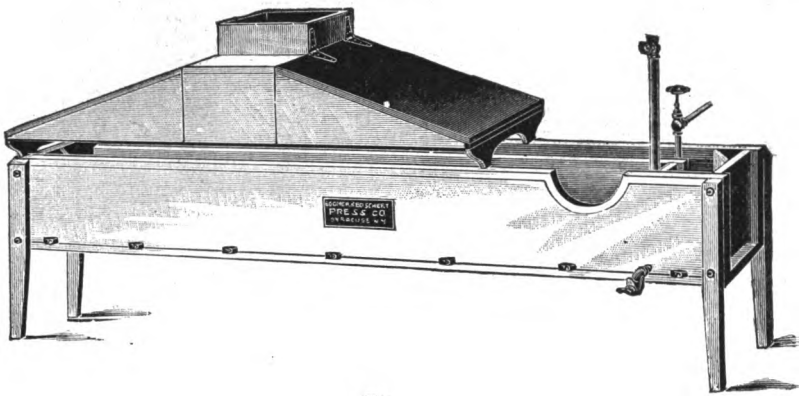


Fig. 51.

The cover has many advantages over any other, and will be furnished without extra charge. It is so made that a flue of any length can be easily attached to reach through the roof or out of the side of the building. The cover is raised above the vat, and the front end near the steam inlet and exhaust being closed by paddles, causes a strong draft up the chimney drawing with it the steam from evaporation, while the operator has full view of the boiling.

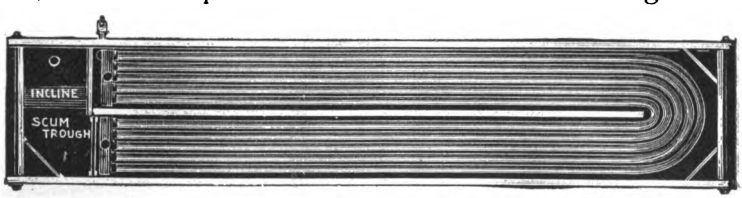


Fig. 52.

The advantage of being able at all times to see just how the coil is operating will be appreciated by all who have used a close cover.

The portion cut out of the side of the vat at the outlet enables the operator to get a better view of the thermometer without having to handle it. The outlet is a straight-way gate and being short and straight can be easily kept clean and will not clog. By a shield around the steam pipe where it enters the manifold the liquid is kept away from the pipe, and there is no trouble from burning on as in the ordinary way. The exhaust pipe being comparatively cool, there being no danger of burning, we take it out over the top of the vat instead of through the bottom as formerly, and by making the outlet small we are able to make this standing pipe practically a steam trap, leaving the steam pipe full open and regulating the boiling entirely by the exhaust pipe valve. Our coil is made of pipe ¾ inch outside diameter.

By using a number of small pipes we get the necessary heating surface, and as they require less juice to cover them than large pipes, we can boil faster, keep the juice under heat less time, and make a lighter colored, firmer jelly.

DIMENSIONS, ETC.

As shown in Fig. 51.

Size.	Estimated Horse Power.	Floor Space Occupied.		Heating Surface, in Square Inches	No. of Pipes.	Price, with Copper Coil.
		Length.	Width.			
M	5	8 ft. 6 in.	1 ft. 4 in.	1000	3	$ 60 00
N	8	9 ft. 6 in.	1 ft. 6 in.	1800	4	80 00
O	12	11 ft. 1 in.	1 ft. 8 in.	2700	5	90 00
P	16	14 ft. 1 in.	1 ft. 8 in.	3600	5	110 00
R	20	14 ft. 9 in.	1 ft. 10 in.	4500	6	130 00
S	24	16 ft. 3 in.	2 ft. 9 in.	5600	7	160 00

OPERATING.

The cold juice is admitted into the scum trough, and passing under the scum board, which is slightly raised from the bottom, it comes in contact with the coil, which being coolest at this end, gradually heats it, causing the impurities to rise to the surface, and flow over the scum board into the scum trough, from whence it is occasionally swept over the incline and is drawn off at (C). As the clarified juice continues on its course, it comes in contact with a higher degree of heat, which causes the foam to rise higher and flow towards the scum board rapidly, forming a reverse current, the juice flowing toward the outlet and the foam with the scum towards the inlet or scum trough. The juice should be carried just deep enough to cover the pipes well, the supply being regulated according to the steam pressure, and the rapidity with which it is finished sufficiently. When starting, the first few gallons may not be sufficiently cooked, and can be put back into the supply tank. Keep the pressure even and the supply and current as regular as possible. It may be cooked either to 28° to 34° by the Saccharometer, or 218° to 224° on the Thermometer, the degrees varying according to fruit, &c. As it becomes sufficiently reduced it is drawn off, being retarded with a paddle if too thin, or hurried along if too heavy.

CLEANING.

In cleaning, the coil must be disconnected and lifted out of the vat, and both coil and vat kept perfectly clean and free from any fermentation.

COPPER COILS.

All our Evaporator tubes are of hard drawn copper, and as thin as possible and not easily bruised. They will transmit the heat much more readily than heavy copper, and are thus more economical of steam.

The prices include a Saccharometer, Hydrometer, Thermometer, and valves ready to be attached to the boiler.

The vats are well made, of a good quality of lumber, with the joints grooved, tongued, and clamped together securely with bolts, and are well painted.

APPLE BUTTER COOKER.

The illustration shows our latest improved Steam Coil for cooking Apple Butter, scalding Cider, &c.

It consists of a copper coil one inch outside diameter, arranged to go in an ordinary cask from which the head has been removed.

From the coil ¾ inch steam pipe extends to a double stuffing box, arranged to be bolted to a post or to the side of the building. This stuffing box is cast with a partition in the center, one end being for steam and the other for exhaust The entrance of the steam is controlled by the valve above the stuffing box, and passing through the pipe and coil, is exhausted through the other pipe, and the condensed water conducted away outside the building through the pipe extending downward from the stuffing box. The blowing out of the condensed water is regulated by the valve near the coil within easy reach of the operator's hand. Extending from the fittings on top of coil are two handles of gas pipe, plugged so as to exclude the steam, and connected on their outer ends by a wooden handle. This handle extending beyond the cask, not only enables the operator to stand back from over the heat and steam, but gives a leverage which greatly lessens the labor, as it does not have to be worked at arms length as where hose is used. Full boiler pressure can be carried without danger of bursting or blowing off hose, which those who have operated coils fitted with hose will appreciate. The coils being balanced by the weight, will hang suspended in any position. The stuffing box is placed at just one-half the height of the cask, and the circle described by the coil in working, is that of the curve of the staves.

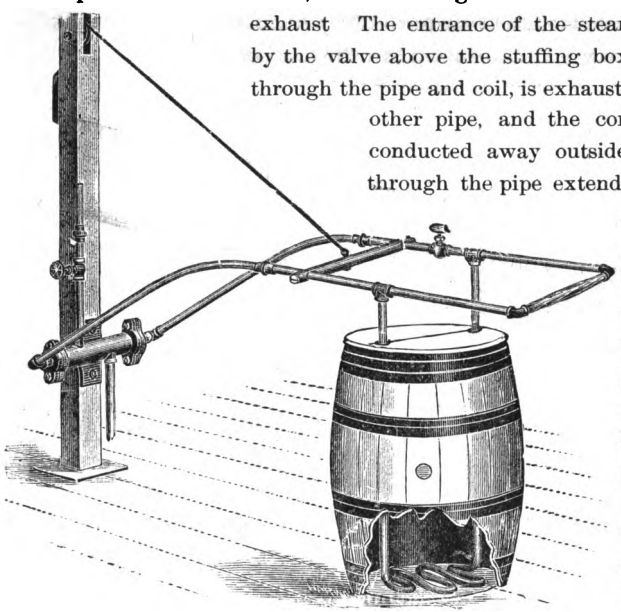


FIG. 53.

Price, without Cask $20 00

Heat and Pressure.

The following tables, taken from "Haswell," are the deductions from careful and exhaustive experiments conducted by experts having facilities for accurate work, and can therefore be relied upon as correct. It will be seen that the heat increases rapidly in proportion to the increase of steam pressure. Hence, if a higher pressure is carried on any of our Evaporators, the capacity will be increased in proportion. The pressure is given above the atmosphere, and the degrees of heat, omitting fractions:

PRESSURE OF STEAM.	DEGREES OF HEAT.	PRESSURE OF STEAM.	DEGREES OF HEAT.	PRESSURE OF STEAM.	DEGREES OF HEAT.
2 lbs.	216	32 lbs.	279	62 lbs.	313
4 "	225	34 "	282	64 "	315
6 "	231	36 "	284	66 "	317
8 "	236	38 "	287	68 "	318
10 "	241	40 "	289	70 "	320
12 "	245	42 "	292	75 "	324
14 "	249	44 "	294	80 "	328
16 "	253	46 "	297	85 "	332
18 "	257	48 "	299	90 "	335
20 "	261	50 "	301	95 "	339
22 "	264	52 "	303	100 "	343
24 "	267	54 "	305	105 "	346
26 "	270	56 "	307	110 "	349
28 "	273	58 "	309	115 "	352
30 "	276	60 "	311	120 "	355

COMBINED BARREL GUAGE AND WANTAGE ROD.

FIG. 54.

The above cut shows a combined guage manufactured expressly for our trade. As usually made the guage and rod are separate, and some of the tables are of no use to cider-makers, only tending to confuse, besides there being two separate rods, are more liable to get misplaced or lost. By this combination of both in one, we secure a very neat and compact rod, and with much less liability of error than when those of ordinary manufacture are used. The workmanship is the very best. The figures being large, are easily read. We will send one of the gauges by mail, postage paid, with full directions for use, on receipt of 80 cents.

Hydrometer.

The specific gravity of cider before it is fermented indicates the amount of sugar it contains and determines its value. It is shown by the Cider Hydrometer.

Cider that shows 10° on the hydrometer contains one ounce of sugar to the pound of cider, 20° indicate two ounces per pound, or about one pound to the gallon.

Cider made early in the season is generally of little value, standing on the hydrometer at 12° to 15°. Later as the apples become ripe, it runs up to 18°, 20°, 22°, and sometimes from choice apples much higher.

The higher the cider stands on the hydrometer, the more jelly it will make, and of a better quality. It will be found of great service. Forwarded by mail, at BUYER'S RISK, on receipt of 75 cents.

FIG. 55.

Saccharometer.

This instrument is used to indicate the specific gravity of heavy liquids, or those containing much saccharine matter. It is often called "Baume scale." It is used for determining when the liquid is sufficiently reduced to form jelly of any desired consistency, which varies from 28° to 34°, according to fruit and season, as explained elsewhere. As both this and the hydrometer are of glass and easily broken, we advise when possible, buying at some drug store near home, but when parties are unable to obtain it, we will forward them by mail, at BUYER'S RISK, on receipt of 75 cents.

FIG. 56.

Thermometers.

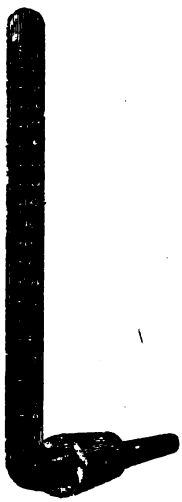


FIG. 57.

Thermometers are sometimes used for determining when the jelly is sufficiently reduced. The denser it becomes the higher degree of heat it will show on the thermometer. The degree at which it will be properly cooked to make soft or firm jelly, varies from 218° to 224°, according to the condition of apples, cider, &c.

The cut shows an angle Thermometer which can be attached to any of our steam coils or Semi-Continuous Evaporators, the lower end passing through a cork in the side of the vat so the bulb of the Thermometer comes in contact with the liquid in the vat and saves handling. These will be attached when desired or furnished separate, for $1.50 each. We can also furnish Thermometers 15 inches in length, with large mercury column, which enables the operator to easily see the degrees while immersed in the liquid, at $1.50 each, or a common Thermometer with metal back, which can be attached to a stick, for 30 cents each. We shall take great care in packing these goods, and will send by mail, postage paid, AT BUYER'S RISK OF BREAKAGE

CAPACITY OF CISTERNS OR TANKS IN GALLONS FOR EACH INCH IN DEPTH.

Diameter in feet.	Gallons.	Diameter in feet.	Gallons.	Diameter in feet.	Gallons.
2	1.95	6½	20.68	12	70.05
2½	3.05	7	23.98	13	82.74
3	4.06	7½	27.34	14	95.96
3½	5.99	8	31.33	15	110.16
4	7.88	8½	35.37	20	195.84
4½	9.91	9	39.65	25	305.99
5	12.24	9½	46.14	30	440.64
5½	14.81	10	48.96	35	599.
6	17.62	11	59.54	40	783.1

Indicator.

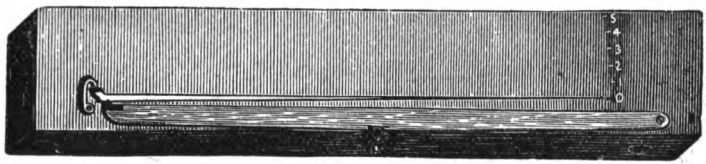


FIG. 58.

The Indicator consists of two levers arranged to accurately indicate the spring of the Head Beam of the Press. It enables one to see at a glance the amount of pressure being transmitted to the material under pressure.

The advantage of this will be readily seen, especially when Presses are run by power. It greatly reduces the possibilities of breakage and enables the operator to determine when the material is sufficiently pressed. It will be furnished without extra charge on all our Presses.

Shafting, &c.

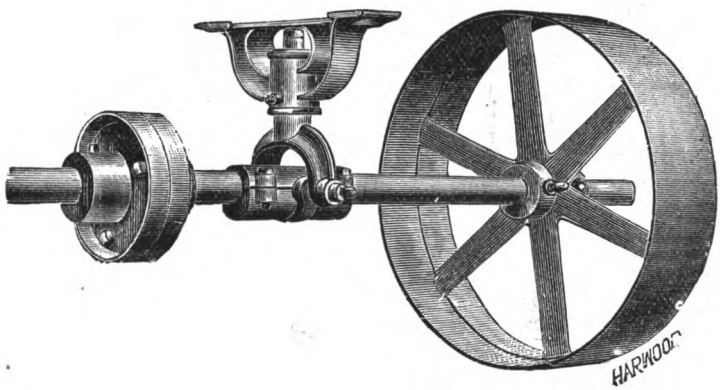


FIG. 59.

Shafting—We can furnish it turned and polished of any size or length.

Pulleys—Having a full line of patterns of the latest and most improved styles, we feel confident of our ability to please.

Hangers—Our new pattern, adjustable, self-oiling boxes are unexcelled by anything in the market.

Prices—We shall be pleased to quote on application. Send us specifications of what you require, and we will give estimate of cost.

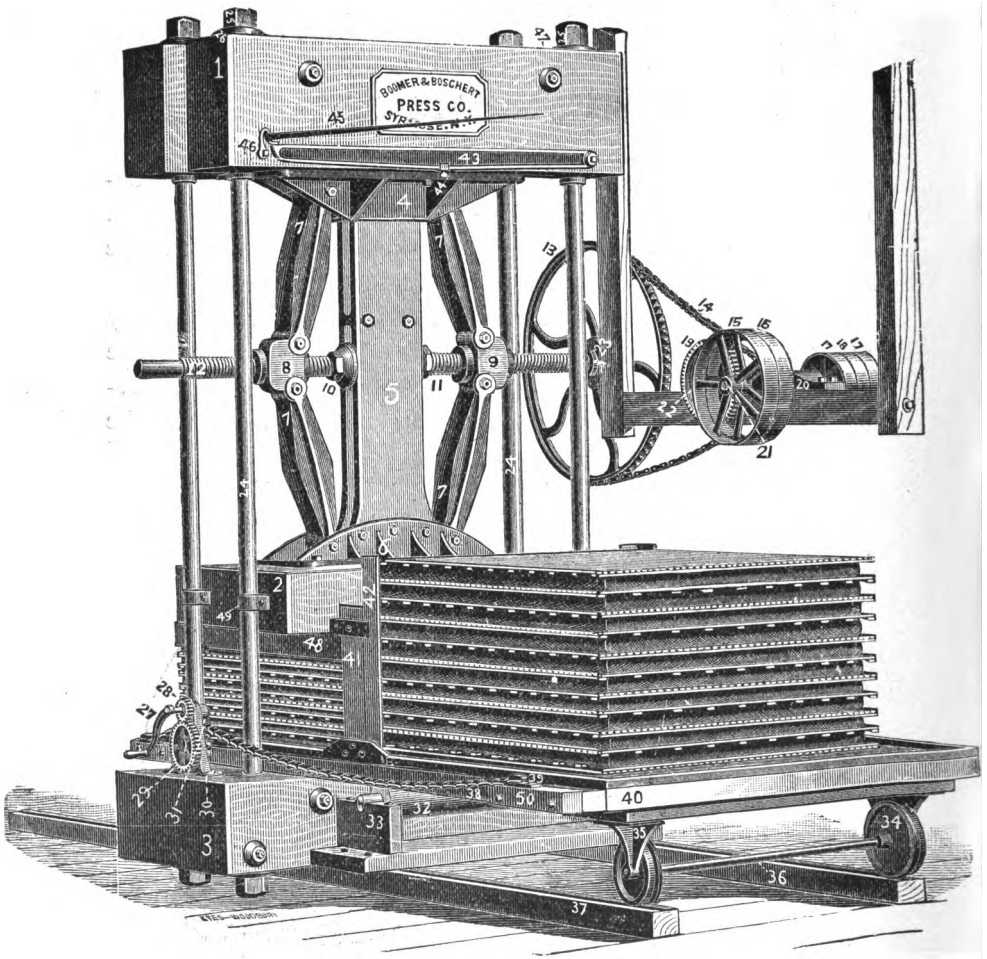


FIG. 60.

PARTS

—OF—

Knuckle Joint Press.

1. Head Beam.
2. Follower.
3. Base.
4. Upper socket.
5. Sliding standard.
6. Lower socket.
7. Arms.
8. Left-hand screw nut.
9. Right-hand screw nut.
10. Left-hand screw collar.
11. Right-hand screw collar.
12. Screw.
13. Chain wheel.
14. Press chain.
15. Large loose pulley for Power Att.
16. Large fast " " " "
17. Small loose " " " "
18. Small fast " " " "
19. Large gear " " " "
20. Frame " " " "
21. Long shaft " " " "
22. Short shaft " " " "
23. Friction wheel.
24. Press rods.
25. Rod nuts.
26. Rod washers.
27. Crank for Platform Shifter.
28. Small gear " " "
29. Large " " " "
30. Frame " " " "
31. Spr'ket " " " "
32. Platform roller
33 " roller box.
34. " wheel.
35. " axle stand.
36. " axle
37. " track.
38. " chain.
39. " hook.
40. Platform.
41. " post.
42. Rack guide.
43. Indicator bar.
44 " seat.
45. " pointer.
46. " hook.
47. Block between head beams.
48. Square follower plank.
49. Rod loops.
50. Platform stop.

In ordering repairs, give size of Press and dimensions of parts wanted. See "Extras," page 55.

PARTS
—OF—
Power Screw Press.

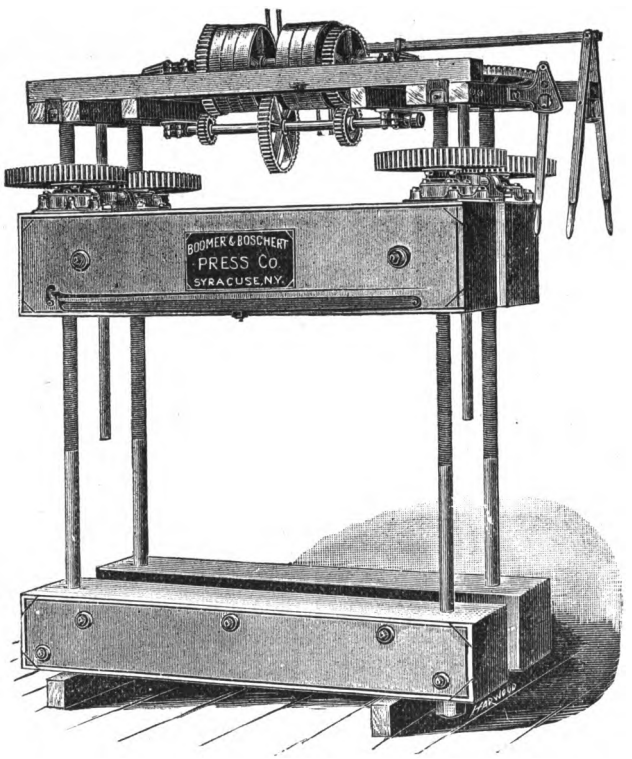


FIG. 61.

1. Large spur gear on screws.
2. Right-hand thread screw nut.
3. Left-hand thread screw nut.
4. Head socket washer.
5. Cover for same.
6. Spur pinion sliding on upright shafts.
7. Yoke.
8. Split collar on pinion.
9. Brass washer between split collar and yoke.
10. Large bevel gear.
11. Bearing for same.
12. Bevel pinion.
13. Shaft boxes.
14. Cap for same.
15. Large spur driving wheel.
16. Pinion to match.
17. Medium spur gear (upper shaft).
18. Pinion to match (lower shaft).
19. Large center spur gear.
20. Long center pinion.
21. Top casting on screws.
22. Lever quadrant.
23. Double lever quadrant.
24. Lower screw washer.
25. Pulley, fast to shaft.
26. Pulley, fast to long center pinion.
27. Pulley, loose on shaft
28. Bronze plano-concave washer under nut.
29. Fork for shifting lower shaft.
30. Yoke box.
31. Screw—right-hand thread.
32. Screw—left-hand thread.
33. Upper shaft.
34. Lower shaft.
35. End shaft upright.
36. Rod for shifting lower shaft.

Each size Press has a letter and each part a number. In ordering repairs give both letter and number. Thus, the large bevel gear on the top of upright end shaft will be marked "A 10" on the No. 1 Press; "B 10" on the No. 2, and "C 10" on the No. 3.

"Right" and "Left Hand" Threads.

As there seems to be some difficulty in understanding the above terms, we herewith present engravings which will clearly explain what is meant.

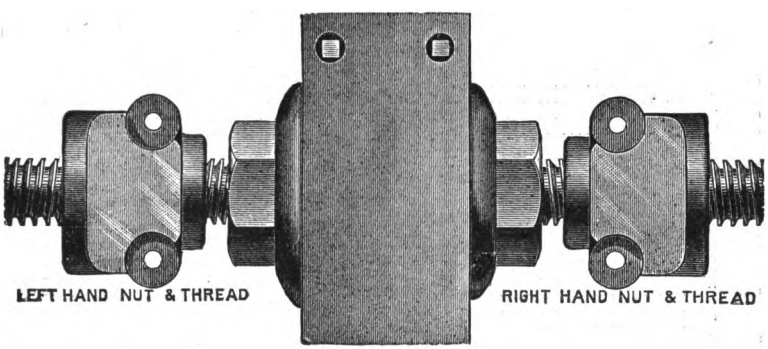


FIG. 62.

The above cut represents a portion of the screw used in our Knuckle Joint Presses, the collar near the center being threaded the same as the nuts, screwed on and keyed in place.

FIG. 63.

Our four screw presses are made with two right and two left hand threaded screws. The Figs. 63 and 64 so clearly represent them that no further explanation is necessary. A comparison of the inclination of the threads in the engravings with the screws in the press will enable anyone to order correctly, if repairs should ever be found necessary.

FIG. 64.

Belting and Hose.

As every cider mill requires more or less Belting and Hose, and many of our customers are not so situated that they can purchase to the best advantage, we offer such our services, and shall be pleased to quote prices. We shall handle only the **best quality** and sell **strictly for cash.**

RUBBER HOSE.

Conducting Hose—Two Ply.

Int. Diam.	Per Ft.
½ inch	$0.20
¾ "	.25
1 "	.33
1¼ "	.42
1½ "	.50
1¾ "	.58
2 "	.66
2¼ "	.75
2½ "	.82
2¾ "	.92

Three Ply.

Int. Diam.	Per Ft.
½ inch	$0.25
¾ "	.30
1 "	.40
1¼ "	.50
1½ "	.60
1¾ "	.70
2 "	.80
2½ "	.90
2½ "	1.00
2¾ "	1.10
"	1.20

Suction Hose—Four Ply—Steam

Int. Diam.	Per Ft.
½ inch	$0.51
¾ "	.67
1 "	.85
1¼ "	1.04
1½ "	1.25
1¾ "	1.45
2 "	1.66

Five Ply Steam.

Int. Diam.	Per Ft.
½ inch	$c.65
¾ "	.83
1 "	1.03
1¼ "	1.30
1½ "	1.56
1¾ "	1.81
2 "	2.07

On Spiral Brass Wire.

Int. Diam.	Per Ft.
¾ inch	$0.77
1 "	1.00
1¼ "	1.25
1½ "	1.65
1¾ "	2.10
2 "	2.50

BELTING.

LEATHER.

1 inch belting	$0.12
1¼ "	.15
1½ "	.18
1¾ "	.21
1 "	.24
2¼ "	.27
2½ "	.30
2¾ "	.33
3 "	.36
3¼ "	.39
3½ "	.45
4 "	.51
4½ "	.57
5 "	.63
5½ "	.69
6 "	.81
7 "	.93
8 "	1.05
9 "	1.17
10 "	1.29
11 "	1.41
12 "	1.63

RUBBER.

	2-Ply Per Ft.	3-Ply Per Ft.	4-Ply Per Ft.
1 inch	$0.07		
1¼ "	.09		
1½ "	.11		
2 "	.15	$0.17	$0.21
2½ "	.18	.22	.26
3 "	.22	.26	.31
3½ "	.26	.30	.37
4 "	.30	.34	.42
4½ "	.33	.39	.47
5 "	.36	.43	.52
6 "	.43	.52	.62
7 "	.51	.60	.73
8 "	.59	.70	.84
9 "	.68	.80	.95
10 "	.75	.90	1.07
11 "	.83	1.00	1.18
12 "	.91	1.08	1.40

NOTE—Above are the regular manufacturers' prices, and subject to a discount. In getting quotations from dealers we would advise asking for **net prices.**

TESTIMONIALS.

We publish a few of the testimonials we have received the past season, having condensed them as much as possible.

I have been using your Cider Machinery for many years with entire satisfaction. My Power Cider Press has been in use twelve years and I have never had but one break and this was no fault of the press. We run sixteen pressings in ten hours. Your Grater which I purchased this year is very satisfactory.

W. W. CARY,
January 27, 1894. Colerain, Mass.

I can recommend your Grater which I purchased last season. It is first class, does fast work and does it well

AMOS SEELEY,
January 27, 1894. Tunnel, N. Y.

We take pleasure in recommending the No. 1 Screw Press outfit as the best and most convenient Cider Machinery in the market. Our customers claimed that they got more cider and of better quality than at other mills and were surprised at our quick work.

McCONNELL BROS.,
January 25, 1894. Sandy Lake, Pa.

I have been using one of your Hand Cider Presses with Reversible Platform for the past two seasons and without an expense of one cent for repairs. My customers come from fifteen miles and pass "Hydraulic" and Common Screw Presses, saying mine is the "King of Cider Mills." I will challenge any mill in the State in the points of rapidity, simplicity and durability. Anyone trying your machinery will never use any other.

January 24, 1894. CHAS. R. WILSON,
North Branch, Md

I have used your Hand Cider Press and Grater for twelve years and have paid out for repairs $3.40. Of course this does not include Racks, Cloths, etc., which are worn out by use.

WESLEY B. BARTON,
January 25, 1894. Dalton, Mass.

I take pleasure in stating that the Cider Machinery bought of you has given entire satisfaction. In workmanship, strength and durability it is excelled by none of which I have any knowledge. I have had one of your presses in use about fifteen years, and I think it will last twenty-five years longer and do good work. The grinder you sent us last fall could not be improved. It does its work pertectly.

J. H. ANDREWS,
January 25, 1894. Farmington, Conn.

NOTE—Mr. Andrews is the Vice-President of the Connecticut Cider and Cider Vinegar Makers Association.

The Grater I bought of you last season was the third one of your make I have used and it gave me perfect satisfaction in every respect. Cider makers need have no hesitation in buying your Grater.

February 28, 1894. HOMER J COE,
Mifflinville, O.

The No. 02 Screw Press and Reversible Platform, etc., I purchased from you last July does all you claim for it, and I would not exchange for any other I have ever seen. SAMUEL SWANK, J. P.,
February 26, 1894. Farnsworth, Pa.

I am perfectly satisfied with your Cider Press. All who gave it a trial say they would not have cider made on any other, as they get a great deal more cider, and it is cleaner and better. A. G. MARTIN.
February 26, 1894. Bachmansville, Pa.

I have used one of your Graters the past season and consider it a fine working machine, fully up to standard in all respects.
January 29, 1894. GEO N WILLSON,
Alford, Mass.

I have used your Extra Heavy Power Cider Press for a number of years and the repairs have been scarcely anything Last season I put in one of your No. 3 Screw Presses and it has given entire satisfaction and I can recommend your machinery to anyone desiring to purchase
Jannary 29, 1894 SYLVESTER DEYO,
Kingston, N. Y.

The No. 02 Screw Press is a perfect machine and works complete. Some of my customers had cider made last season on a large Hydraulic Press of another make but say that my press beats it. The Pomace Chute and Reversible Platform are just the things. T. H. SHOEMAKER,
January 27, 1894. Clarkstown, Pa.

I have your No. 02 Screw Press and find it first class in every respect. Your grater does the best work of any I have ever seen. Should any one wish you may refer them to me and I will show them the press all set up for business. F. S. WEED,
January 25, 1894. Pawlet, Vt.

I think the No. 10 Inverted Hydraulic Press one of the best ever invented. There is an ——— Hydraulic Press seven miles from here but I had customers come within one half mile of them, saying, that the cider I made was better and cleaner. It takes four men to run the ——— Press, while my brother and myself run mine I advise all intending to purchase to call upon you.
January 29, 1894 ADELBERT WELLER,
Saltspringville, N. Y.

I have been seventeen years in the business, have used five different kinds of presses and can say that the No. 12 Hydraulic Press I bought of you, last season, is simply perfection. Its all right. I should not know where to suggest an improvement. H. C. WILLIAMS,
January 27, 1894. Fly Creek, N. Y.

I have not had apples enough this season to test to full capacity the No. 9 Hydraulic Press I got of you in 1892. So I am unable to say just what it will do. I run it slow and give plenty of time to drain. You can press out a cheese in ten minutes or less but I like to give more time and let the cheese drain good. In regard to any defects I have found none. The press started up without anything being done to press or pump.
January 30, 1894. JOHN KING,
Ansonia, Conn.

I did not get the No. 9 Inverted Hydraulic Press and Reversible Platform until very late and had no opportunity to give it a test for capacity, but will say it gave perfect satisfaction. We have a six horse power engine and one morning without any special effort made sixteen barrels in one hour and ten minutes. I consider your Hydraulic the simplest and safest press in use JOSEPH CLIFT,
February 7, 1894. Elmwood Park, N. Y.

Your No. 8 Inverted Hydraulic Press gave entire satisfaction. I was at the World's Fair and saw nothing better.

January 29, 1894. M. J. BERNHEISELS,
Green Park, Pa.

The No. 8 Inverted Hydraulic Press gives good satisfaction. My customers are well pleased and say they get more cider, that it keeps better and they do not have to wait all day to get it made. Your Hydraulic is the thing. M. N GREENLEAF,
Kirkwood, Pa.

The No. 8 Inverted Hydraulic Press with Reversible Platform and Grater have given entire satisfaction both to my customers and to myself. It is very handy to operate and its capacity is very great, giving a yield of about one third more than the old style presses. I have had several years experience and regard your machinery as first class both in material and workmanship. FRANK E. EDWARDS,
January 24, 1894. Wagontown, Pa.

We think the No. 8 Inverted Hydraulic Press cannot be equalled for quick and perfect work. It is giving perfect satisfaction and I would not have any other for my use.

January 31, 1894. J. W. MENDENHALL,
Thorndale, Pa.

The No. 8 Inverted Hydraulic Press proved a success from the start, being simple in construction and easy to operate. I would advise anyone in want of Cider Machinery to buy of you. M. L. RICE,
January 25, 1894. Landisburg, Pa.

The No. 9 Inverted Hydraulic Press purchased in 1892, is all right and I can make cider against any press I ever saw. Can make 100 barrels in ten hours easily. B. G. MUSSER.
January 29, 1894 Columbia, Pa.

I have used one of your No. 9 Inverted Hydraulic Presses, with Reversible Platforms for three seasons and have not spent one cent for repairs. There are two - —— Hydraulic Presses within one mile of me, but they did not start up, saying the expense of running them was too great. I am well pleased with all of your machinery, having also your Grater, Semi-Continuous Evaporator and Apple Butter Cooker.

February 5, 1894. W. A. RUMMELL,
Salem, Oregon

We cannot say too much in favor of your machinery, as we have used your presses, graters, etc., for the past fifteen years, and have found them perfectly satisfactory in every respect. We have manufactured a million gallons of cider on two of your No. 3 Four Screw Presses in one season, and you may enter our order for another Press for the coming season. We would like to say in brief that our dealings with you in the past fifteen years have been very pleasant and satisfactory.

January 26, 1894. ALBANY COUNTY PRODUCE CO.,
Ravena, N. Y.

We find your machinery to be all that they represented. You are at liberty to use our name in any testimonial you wish.

January 25, 1894. SCHEALER & CLEAVER,
Boyertown, Pa.

I purchased one of your Graters last season and can say that I am more than pleased with it. FRANK WELLS,
January 23, 1894. Loudon, N. H.

I am well pleased with the No. 1 Screw Press outfit, and think it the best made for a Custom Mill. I made about 1,000 barrels without spending a cent for repairs, and can cheerfully recommend your machinery.
January 25, 1894. DWIGHT BRINTON,
Falls Village, Conn.

The No. 1 Screw Press outfit has surpassed my expectations and will do all you claim for it. We had a small crop but I made double the amount I expected to. JAMES RUBRECHT,
January 25, 1894. Cressona, Pa.

It affords us pleasure to announce that the No. 2 Screw Press we received from you last fall has given entire satisfaction. On one occasion we pressed from 10 A. M. to 9 P. M. 42,000 pounds of grapes. After pressing, the pomace was so dry that there was actually not a drop of juice left
January 24, 1894. GAST WINE CO.,
St. Louis, Mo.

The Grater works splendidly and will grind as fast as two men can shovel the apples in. S. ALLEN.
October 28, 1893. Norwich, Ont.

The No. 02 Screw Press we have been using gives perfect satisfaction.
January 22, 1894. THE SCOTCH PRESERVING CO.,
Bellaire, O.

We use your Grater for Pine Apples and it will do better work and more of it in a day than both the other kinds I have been using, one of which I paid $135.00 for and the other $75 00. I can cheerfully recommend your Grater as the best I have ever seen used for this purpose.
January 23, 1894. THOS. B. SCHALL.
Baltimore, Md.

We find the Wine Press just what we wanted. It works rapidly and presses thoroughly. The Grater is also an excellent machine and we are more than pleased with both. DUCKETT & WRIGHT.
January 22, 1894. Washington, D. C.

I have one of your Knuckle Joint Presses and made last season 45,000 gallons of cider. Your Grater outstrips anything I have ever seen.
January 22, 1894. CHAS. R. WILSON,
North Branch, Md.

We have used one of your Knuckle Joint Presses for ten years and have also one of your four Screw Presses both of which have given us entire satisfaction Your Grater is also first class. J. H. BARR & SON,
January 24, 1894. Saline, Mich.

The Grater gives the best of satisfaction as we have no trouble from stones, bolts, nails or any other hard substances passing through it. We easily grind two bushels per minute with a little four horse power engine using steam at 60 pounds pressure. BLOSSOM & GILES.
January 24, 1894. Granville, N. Y.

We put the No 1 Screw Press outfit up ourselves and found it all right. Everything worked splendidly through the whole season and we are proud of the results. TREIDA & STRAUCH,
January 24, 1894. Rock, Pa.

The Grater gives entire satisfaction and I consider it the best in use. It does the work nice and easy and with the Grinder to sharpen the knives it is nothing but fun to keep it in order. A. F. KENNEY,
January 25, 1894. Truxton, N. Y.

The No. 3 Screw Press with Steel Beams we purchased of you last fall gave good satisfaction in every respect, and when we enlarge our Mill we will give you an order for the same style of press. We would recommend this style to anyone contemplating putting in a large press requiring strength and durability.

EAGLE BOTTLING WORKS,
January 25, 1894. E. B. Gardiner, Manager, Elmira, N. Y.

The Grater I bought of you last summer gives entire satisfaction and I would recommend it to everyone in want of a first class machine.

January 23, 1894. M. W. BRACE,
Orange, Pa.

We have used your No. 1 Screw Press outfit in our factory for the past six months, and are in every way pleased with it

January 24, 1894. OLD DOMINION PRESERVING CO.
Richmond, Va.

I am pleased to submit to you my opinion in regard to the No. 1 Screw Press and Semi-Continuous Evaporator purchased of you last season, both of which have more than fulfilled my expectations. I can truthfully say that you under estimate the work which they can perform. In using the press I find that it yields more cider from the same quantity of apples than any other press with which I am acquainted. Since the season began I have manufactured seventy-five tons of apple jelly with the aid of your machinery.

Should you at any time desire a more extended report from me in regard to its capability, I shall be pleased to aid you. Fully appreciating its use I can recommend it to any intending purchaser. J. C. OSBORNE,
January 25, 1894. Port Byron, N. Y.

The No. 1 Screw Press we bought of you last fall does all that you recommended. One man brought thirty-three bushels of apples and said he got forty-three gallons more cider from them than he had ever received from a like amount from any other mill. People came from ten or twelve miles, passing other mills to have me make their cider.

January 25, 1894. NATHAN W. WELLER,
Middletown Springs, Vt.

The Wine Press purchased of you last fall gave entire satisfaction. We made about 7,000 gallons of wine and found the press would do all you claimed for it. C. B. LAPHAM,
January 22, 1894. Canandaigua, N. Y.

I am well suited with the No. 2 Screw Press and Reversible Platform. It will do all you claim for it. JEREMIAH BIRDSALL,
January 24, 1894. North Salem, N. Y.

The No. 1 Screw Press I bought of you last fall is a most perfect machine for making cider. I think that there are no better on the market and would advise all desiring an outfit to buy of you. PETER GRENIER,
January 24, 1894. East Syracuse, N. Y.

I would not be without the Semi Continuous Evaporator. It is just a "dandy." The press works like a charm yet and we draw custom right away from other mills. JOHN PIFHER,
May 1 1893. New Washington, O.

My No 1 Screw Press works good and gives the best of satisfaction to my customers, who say it is the finest mill they have ever seen.

September 25, 1893. J. C. NICHOLSON,
Morrice, Mich.

The No. 1 Screw Press and Grater work to my entire satisfaction and all who see them in operation are well pleased. I can earnestly recommend your Company to all who want good goods and fair dealings.

January 24, 1894. O. TOWNSEND,
Gardiner, N. Y.

The No. 1 Screw Press Reversible Platform and Grater I run with a four horse power engine and did not lay out one cent for repairs. I had apples brought six or seven miles and past other mills and all my customers said it was the most complete Cider Mill they had ever seen.

January 31, 1894. ARTHUR M. GERE,
Brooklyn, Pa.

Your No. 2 Screw Press outfit has given me the greatest satisfaction, and I think I made a wise selection when I purchased your Press.

January 29, 1894 HENRY YELK,
South Hermitage, Pa.

The Grater is perfect in every respect and will do more work than you represented. I have not had the least trouble with it.

January 30, 1894. FRANK HATHAWAY,
Abington, Mass.

I have used your Press for six years. I am well pleased with the Grater I purchased last fall. When I want any Cider Machinery I send to the B. & B. Press Co., and get honest dealings and good goods.

January 25, 1894. JOSEPH KLOPFENSTEIN,
Leo, Ind.

I am very well pleased with the Grater. It has given good satisfaction.

January 29, 1894. JACOB L. ZOOK,
Eby's, Pa.

The Machinery which you have supplied us has given perfect satisfaction; so much so indeed, that if at any time in the future we shall need presses, or any class of goods you make, we should not think of purchasing until after you had an opportunity to figure on the work

January 24, 1894. TARRANT & CO.,
278 Greenwich St., New York.

Having used your Press for the past seven years with perfect satisfaction, we put in another last season and they are far superior to anything we have ever seen. Your Grater is the finest in the world. We ground three hundred bushels in 32 minutes. WALLING & COOK,

January 29, 1894. Tinton Falls, N. J.

The Grater gave me perfect satisfaction, and I do not see how it could be improved. It makes splendid pomace and if a stone happens to get in it does no harm. In short your Grater deserves all praise.

January 29, 1894. FRAZIER VAN KEUREN,
Pine Bush, N. Y.

The No. 02 Screw Press is a well built machine and has large capacity compared with its cost. It is capable of paying for itself it a short time. The Grater also gave perfect satisfaction. F. E. MERRILL,

January 27, 1894. Turner Center, Me.

The Press purchased of you is in constant use. It is doing all it was represented to do. We are quite satisfied with the work.

February 1, 1894. G. C. & W. C. SNOW,
Penn Yan, N. Y.

The No. 1 Screw Press outfit far surpassed my expectations. I made nearly all the cider in this vicinity, some of my customers coming six or seven miles and passing other mills. Some of my customers had previously made on an ——— Hydraulic Press but said mine was the best. Apples were scarce but I made about 35,000 gallons, and all my customers were satisfied.
J. F. GROVE,
January 29, 1894. Draco, Pa.

I have used your Press and Grater the past season and find them very satisfactory in every respect.
A. E. BRADT,
January 29, 1894. Muir, Mich.

I like your No. 02 Screw Press and my customers are all much pleased with its work
C. J. FOGIL,
January 28, 1894. Gilead, Conn.

Your Grater is the best I have ever seen and I would not do without it.
January 31, 1894. H. B. SHAMPANG,
White Store, N. Y.

Your No. 1 Screw Press and Reversible Platform I bought last season works like a charm I have had customers come from near a ——— Hydraulic Press and they say mine is the best for nice, clean, quick work and for convenience.
G. H. SCHLEGEL,
January 27, 1894. East Berkeley, Pa.

My No 1 Screw Press is the best I have ever seen, and is very easy to run.
February 22, 1894. J. C. NICHOLSON,
Morrice, Mich.

I feel it my duty to inform you that the No 1 Screw Press with Reversible Platform works like a charm, and gave no trouble whatever.
February 12, 1894. A. G. HUPFEL,
Johnsville, N. Y.

The No. 1 Screw Press, Grater and Elevator works to perfection. It seems almost impossible that it could be improved.
February 4, 1894. G. WILLIS LENGFELD,
West Chazy, N. Y.

The No. 2 Screw Press and Reversible Platform I bought of you last summer beats anything I ever saw for making cider. I have ample power and can grind eight bushels per minute.
S. S. RIDER,
January 26, 1894. West Redding, Conn.

The No 2 Screw Press outfit is first class in every respect, and has given me no trouble from start to finish.
GEO VOGT,
January 22, 1894. Southington, Conn.

I don't think there is a press made that can beat your No 2 Screw Press. It is easy to handle, does quick work and takes but little power to work it. I would not buy any other.
PRANK MISERE,
January 29, 1894. Burton City, O.

The Grater gave good satisfaction and we did not have a bit of trouble during the season. It is the best we have ever seen, and we can recommend it to any one.
A. P. MILES & SON,
February 2, 1894. Cooperstown, Pa.

The Grater I bought of you last fall is first-class and cannot be excelled.
February 15, 1894. W. B. LISK,
Palmyra, N. Y.

I am very well pleased with the No. 2 Screw Press with Reversible Platform and Grater. I can easily make 3,000 gallons per day.
January 30, 1894. HIRAM S. HARTMAN,
Alsace, Pa.

The Grater is doing fine work and lots of it, so we are more than satisfied with it. E. J. WHALEN,
September 28, 1894. Berlin, N. Y.

Your No. 1 Screw Press outfit more than equals your promise. The Grater is a marvel. In thirteen minutes I ground, pressed and put in the barrels the cider from thirty bushels of apples. On September 6th I started the mill at 6 A. M., and at 10:35 A. M., I had made up twenty-four loads of apples, making 2,410 gallons of cider in four hours and thirty-five minutes. The apple crop was small but I paid for the entire outfit from the earnings of the Press. S. T. ERDMAN,
January 25, 1894. Erdman, Pa.

Your No. 2 Screw Press is giving me good satisfaction, and if I were to buy half a dozen more I would buy the Screw Press every time, as it is the best I have ever seen so far. A. C. HITTLE.
March 17, 1894. Foglesville, Pa.

As far as I have used your No 02 Screw Press ontfit it has worked to my entire satisfaction. My advice to parties wishing such machinery would be to buy of you every time if they want honest work and honest dealings.
February 2, 1894. A. T. SWIFT,
Redfield, Me.

The Cider Machinery I purchased of you gives perfect satisfaction. Too much cannot be said in its favor. My patrons all say it is the best and I would have no other. J. C. BRINLEY,
February 9, 1894. Waterfall, Pa.

The No. 2 Screw Press with Reversible Platform and Grater gave perfect satisfaction. My customers say I have the best Cider Mill in Hampden Co.
January 28, 1894. JOHN C. MAGUIRE.
Monson, Mass.

We are well pleased with the No. 02 Screw Press.
January 29, 1894. W. A. COWLEY & SON,
Stamford, N. Y.

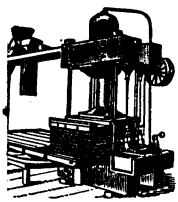
I am well pleased with the Wine Press and Grater. I can easily make 1500 gallons per day running the Press by hand
February 2, 1894. ADAM LEHMAN,
Smithville, Pa.

Your No. 02 Screw Press gave me satisfaction in every respect. Had there been a good crop of apples it would have nearly paid for itself. You can have my old presses cheap. JOS. B. PORTER.
January 29, 1894. Ponkapog, Mass.

We also manufacture presses for a variety of other purposes, which are fully shown in our general catalogue.

All our goods are delivered on cars or boats, and we secure the lowest possible rate of freight.

BOOMER & BOSCHERT PRESS CO.,
SYRACUSE, N. Y.



621
B724

Boomer & Boschert press
N.Y.
36
Boomer & Boschert press c
Syracuse, N.Y., U.S.A. 1894. Annu
catalogue. 22d, 1894.

NAME	DATE	NAME	